

Radio Shack®

ServiceManual

20-506/9506

PRO-26
200-CHANNEL DIRECT-ENTRY
PROGRAMMABLE SCANNER

Catalog Number: 20-506/20-9506

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SPECIFICATIONS

GENERAL

Frequency range
(at default):

For U.S.A./Canada

Frequency (MHz)	Mode	Step(kHz)
25 to 28.995	AM	5
29 to 53.995	NFM	5
59.75 to 71.75	WFM	6000
72 to 75.995	NFM	5
81.75 to 87.75	WFM	6000
88.1 to 107.9	WFM	200
108 to 136.9875	AM	12.5
137 to 173.995	NFM	5
179.75 to 215.75	WFM	6000
216 to 224.995	NFM	5
225 to 399.9875	AM	12.5
400 to 511.9875	NFM	12.5
517.75 to 805.75	WFM	6000
806 to 823.9375	NFM	12.5
851 to 868.9375	WFM	12.5
896.1125 to 1300	NFM	12.5

For UK

Frequency (MHz)	Mode	Step(kHz)
25 to 28.99	NFM	10
29 to 53.995	NFM	5
54 to 71.95	WFM	50
72 to 81.745	NFM	5
81.75 to 107.95	WFM	50
108 to 136.9875	AM	12.5
137 to 179.745	NFM	5
179.75 to 215.95	WFM	50
216 to 224.995	NFM	5
225 to 399.9875	AM	12.5
400 to 511.9875	NFM	12.5
512 to 805.95	WFM	50
806 to 850.9875	NFM	12.5
851 to 1300	NFM	12.5

Heterodyne system:

1st heterodyne		
25 to 311 MHz:	Upper heterodyne	1st IF 380.7 MHz
311 to 665 MHz:	Upper heterodyne	1st IF 254.4 MHz
665 to 806 MHz:	Lower heterodyne	1st IF 254.4 MHz
806 to 1300 MHz:	Lower heterodyne	1st IF 380.7 MHz
2nd heterodyne		
1st IF 380.7 MHz:	Lower heterodyne	2nd IF 58.075 MHz
1st IF 254.4 MHz:	Upper heterodyne	2nd IF 58.075 MHz
3rd heterodyne		
NFM/AM:	Lower heterodyne	3rd 455 kHz
WFM:	Lower heterodyne	3rd 5.5 MHz

Channels:

200 channels (20 CH X 10 banks)

Display:

11-digit LCD (Push-on back-lit) with mode indicators
(MON, 1-10, BATT. Lo, K/L, BANK, SFT, AUTO, DATA, WNFAM,
5, 12.5, 25, ATT, P, CH, MHz, SCAN, MAN, PGM, PRI, L/O, DLY,
WX, ▼, SEARCH, ▲)

Keys (PROGRAM):

"0" to "9": Numeric keys
E: Enter key
•/DELAY: Decimal/Delay key
CLEAR: Clear key
PROG: Program key

(OPERATION):

SCAN: Scan key
MANUAL: Manual key
MODE: Mode key
STEP: Step key
DATA: Data key
SHIFT: Shift key
RVW: Review key
ATT: Attenuator key
PRIORITY: Priority key
MON: Monitor key
WX: Weather service key
⏏/KEYLOCK: Back-lit / Keylock key
AUTO: Auto store key
LIMIT: Limit search key
▲: Search up key
▼: Search down key

Controls: VOLUME control with power ON/OFF switch
SQUELCH control

External jacks: ANT. jack: BNC type
Earphone jack: 3.5 mm dia.
EXT. power jack: 3.7 mm dia. (Center negative)
Battery charge jack: 3.7 mm dia. (Center negative)

Speaker: 8-ohm, 1 W

Power source: AA size Ni-Cd battery × 4

Operating temperature: + 4°F ~ +140°F (-10°C ~ +60°C)

Storage temperature: - 4°F ~ +158°F (-20°C ~ +70°C)

Size: 6 ²⁹/₆₄ × 2 ⁵/₈ × 1 ⁵/₈ inches (164 × 66 × 42 mm)

Weight: 8.47 oz (240 g)

PERFORMANCE

Measurement conditions

Power source: 6.0 V DC at battery terminal
Antenna impedance: 50-ohm
Test temperature: 77°F (25°C)
Modulation frequency: 1 kHz
Deviation: NFM ±3 kHz dev., WFM ±22.5 kHz dev., and AM 60%
Mean signal input level: 100 μV
Audio output load: 8-ohm resistive load (at EXT. speaker jack)
Standard ref. audio output: 50 mW (0.632 V/8-ohm)

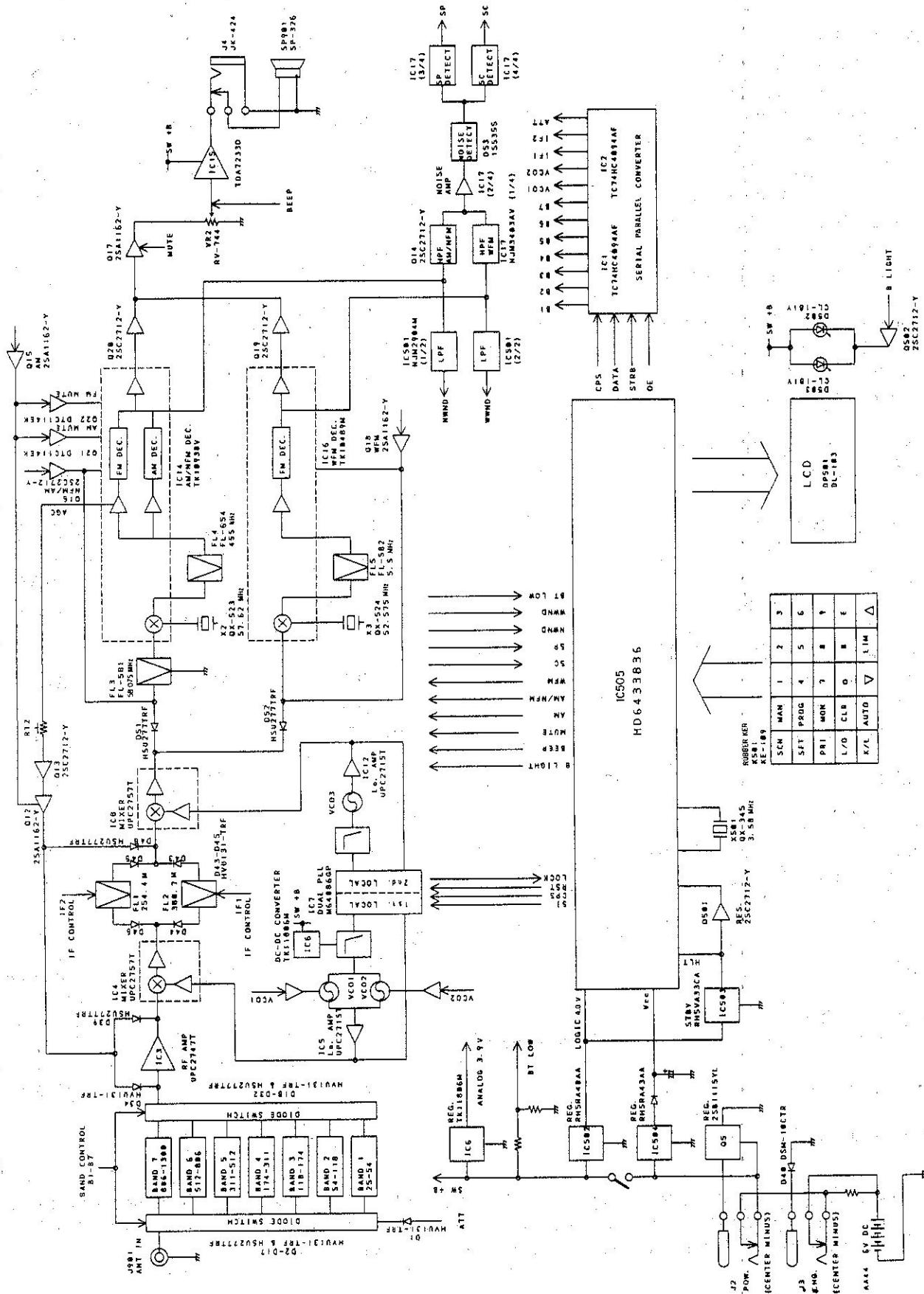
Item		Unit	Nominal	Limit
Sensitivity				
NFM	40.84 MHz	μV	0.5	2.0
S+N / N=20 dB	162.4 MHz	μV	0.6	3.0
	453.25 MHz	μV	0.6	3.0
	954.9125 MHz	μV	0.8	4.0
	1299.9125 MHz	μV	1.0	4.0
WFM	62.45 MHz	μV	5.0	20
S+N / N=30 dB	195.5 MHz	μV	5.0	20
	531.5 MHz	μV	5.0	20
	765.25 MHz	μV	5.0	20
AM	25.5 MHz for U.S.A./Canada only	μV	1.3	8.0
S+N / N=20 dB	108.5 MHz	μV	1.5	8.0
	127.175 MHz	μV	1.5	8.0
	230.05 MHz	μV	1.5	8.0
	325.05 MHz	μV	2.0	8.0

Item		Unit	Nominal	Limit
Threshold squelch (MANUAL)				
NFM	at 40.84 MHz	μV	0.3	1.0
	at 162.4 MHz	μV	0.3	1.0
	at 453.25 MHz	μV	0.5	1.8
	at 954.9125 MHz	μV	0.5	1.8
WFM	at 62.45 MHz	μV	8.0	20
	at 199.5 MHz	μV	8.0	20
	at 531.5 MHz	μV	8.0	20
AM	at 127.175 MHz	μV	0.5	2.0
	at 230.05 MHz	μV	0.5	2.0
	at 325.05 MHz	μV	0.5	2.0
Tight squelch (MANUAL) (S+N)/N				
NFM	at 40.84 MHz	dB	25	15
	at 162.4 MHz	dB	25	15
	at 453.25 MHz	dB	25	15
	at 954.9125 MHz	dB	25	15
WFM	at 62.45 MHz	dB	40	30
	at 195.5 MHz	dB	40	30
	at 531.5 MHz	dB	40	30
AM	at 127.175 MHz	dB	17	10
	at 230.05 MHz	dB	17	10
	at 325.05 MHz	dB	17	10
IF rejection				
NFM	at 40.84 MHz, IF 380.7 MHz	dB	60	50
	at 453.25 MHz, IF 254.4 MHz	dB	30	24
	at 954.9125 MHz, IF 380.7 MHz	dB	60	50
WFM	at 62.45 MHz, IF 380.7 MHz	dB	50	44
	at 195.5 MHz, IF 380.7 MHz	dB	33	27
AM	at 127.175 MHz, IF 380.7 MHz	dB	40	34
Acceptable radio frequency displacement RS240-D				
NFM	at 162.4 MHz	kHz	± 8	± 3
Hum and noise				
NFM	at 162.4 MHz	dB	40	30
	at 453.25 MHz	dB	40	30
	at 954.9125 MHz	dB	40	30
WFM	at 62.45 MHz	dB	50	40
	at 195.5 MHz	dB	50	40
AM	at 127.175 MHz	dB	40	30
	at 325.05 MHz	dB	40	30

Item	Unit	Nominal	Limit
Audio output power			
(at 162.400 MHz NFM)			
Max. output power	mW	250	100
10% THD. output power	mW	220	90
(at 127.175 MHz AM)			
Max. output power	mW	250	100
10% THD. output power	mW	220	90
(at 62.450 MHz WFM)			
Max. output power	mW	250	100
10% THD. output power	mW	220	90
Distortion at 50 mW output power			
at 40.84 MHz 1 mV input	%	1.5	5
at 62.45 MHz 1 mV input	%	1.5	5
at 127.175 MHz 1 mV input	%	1.5	10
Audio frequency response -6 dB			
at 40.84 MHz Low	Hz	200	140~300
High	Hz	1800	1280~2600
at 62.45 MHz Low	Hz	200	130~280
High	Hz	1800	1270~2550
at 127.175 MHz Low	Hz	230	160~330
High	Hz	1700	1200~2420
Power consumption (at 162.4 MHz)			
(at full output)	mA DC	200	220
(at squelched)	mA DC	85	100
(at keep alive)	mA DC	0.2	1.0
Residual noise	mV	0.6	5.0
Scan/Search rate			
Scan (at test freq. at NFM mode)	CH/sec.	50	25
Search (at NFM mode)	step/sec.	100	50
Scan delay	sec	2	1~3
Battery low turn-on voltage	V	4.55	4.35~4.79
Auto power-off voltage	V	4.3	3.8~4.69
(Auto power-off voltage < Battery low turn-on voltage)			
Battery charge current	mA	60	40~80
Memory backup time	day		3

Note: Nominal specs represent the design specs. All units should be able to approximate these — some will exceed and some may drop slightly below these specs. Limit specs represent the absolute worst condition that still might be considered acceptable; in no case should a unit fail to meet limit specs.

BLOCK DIAGRAM



ALIGNMENT AND ADJUSTMENT

PREPARATION FOR ALIGNMENT

To program the following test frequencies into the channel memories:

- 1) Press MANUAL. Enter Channel 1. Press MANUAL.
- 2) Enter the test frequency which corresponds with Channel 1 (Table 1).
- 3) Press E to store the test frequency.

Note: Incorrect operation order or method often results in a display of the error indicator "Error" or an incorrect indication of frequency.

- 4) Repeat Steps 1 ~ 3 above to program the next channel in sequence (Table 1).

TEST EQUIPMENT REQUIRED

- DC power supply
- Oscilloscope
- Frequency counter
- SINAD meter
- Battery terminal: 6.0 V
- Digital voltmeter
- SSVM
- Signal generator (SG)

Table 1. Test Frequency

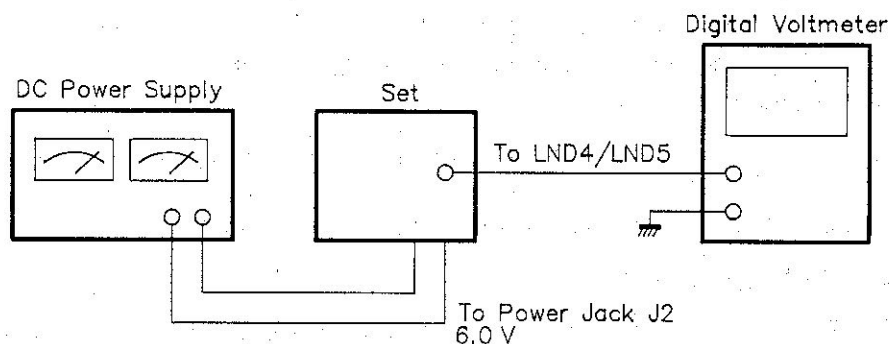
CH	Test Frequency	CH	Test Frequency
1	25.500 MHz	13	954.9125 MHz
2	40.840 MHz	14	1299.9125 MHz
3	62.450 MHz	21	25.100 MHz
4	108.500 MHz	22	139.200 MHz
5	127.175 MHz	23	139.300 MHz
6	162.400 MHz	24	249.600 MHz
7	195.500 MHz	25	249.700 MHz
8	230.050 MHz	26	269.200 MHz
9	325.050 MHz	27	269.300 MHz
10	453.250 MHz	28	530.500 MHz
11	531.500 MHz	29	530.600 MHz
12	765.250 MHz	30	1299.900 MHz

Table 2. VCO Alignment Voltage (at LND5)

CH	Test Frequency	DC Voltage (Typical)	CH	Test Frequency	DC Voltage (Typical)
1	25.500 MHz	3.1 V	13	954.9125 MHz	11.7 V
2	40.840 MHz	4.3 V	14	1299.9125 MHz	Less than 14.8 V
3	62.450 MHz	5.7 V	21	25.100 MHz	More than 2.0 V
4	108.500 MHz	8.2 V	22	139.200 MHz	9.2 V
5	127.175 MHz	8.9 V	23	139.300 MHz	9.3 V
6	162.400 MHz	10.3 V	24	249.600 MHz	Less than 16.3 V
7	195.500 MHz	11.7 V	25	249.700 MHz	More than 1.1 V
8	230.050 MHz	13.5 V	26	269.200 MHz	2.7 V
9	325.050 MHz	11.9 V	27	269.300 MHz	2.8 V
10	453.250 MHz	5.5 V	28	530.500 MHz	8.1 V
11	531.500 MHz	8.3 V	29	530.600 MHz	8.2 V
12	765.250 MHz	9.1 V	30	1299.900 MHz	12.7 V

ALIGNMENT OF VCO

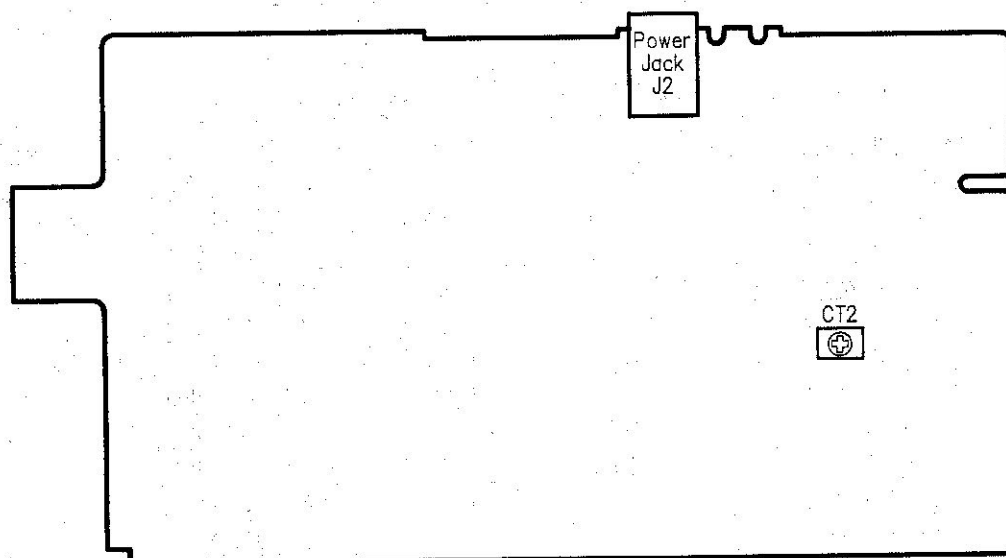
Test Equipment Required and Connections



Alignment Procedure

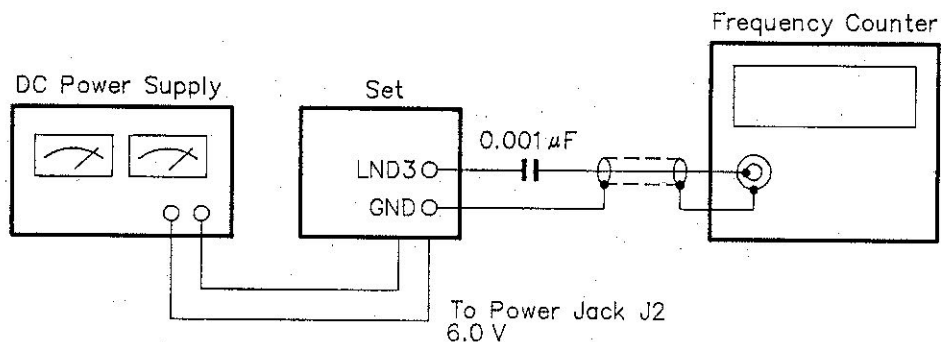
Step	Preset to	Adjustment	Result
1	CH14, 21, 24, 25	No alignment	Connect the digital voltmeter to LND5. (See Page 19 for the position.) Confirm that the VCO voltage at each channel is as indicated in Table 2.
2	CH14	CT2	Connect the digital voltmeter to LND4. (See Page 19 for the position.) Adjust CT2 to obtain $3.0 \text{ V} \pm 0.05 \text{ V DC}$.

Alignment Point Locations (RF PCB)



ALIGNMENT OF REFERENCE OSC

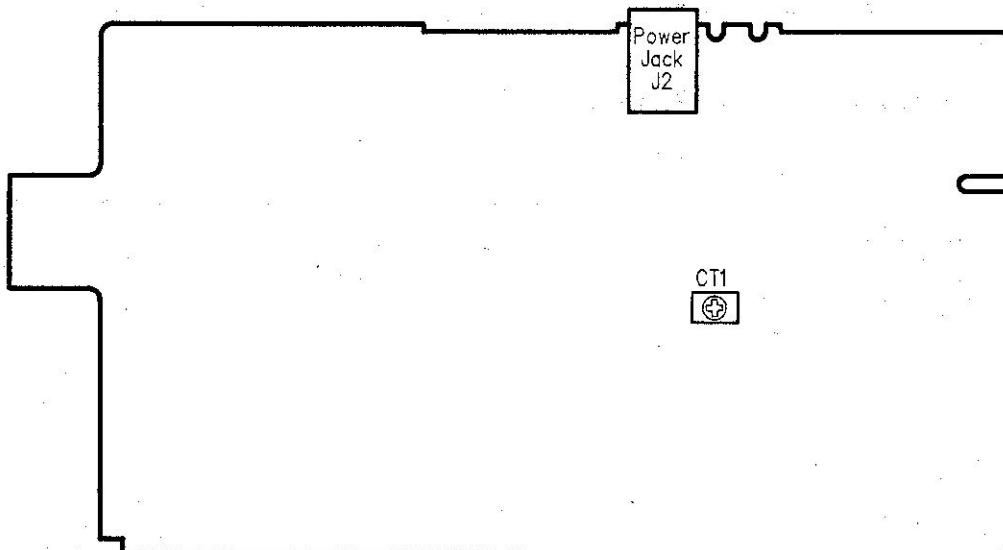
Test Equipment Required and Connections



Alignment Procedure

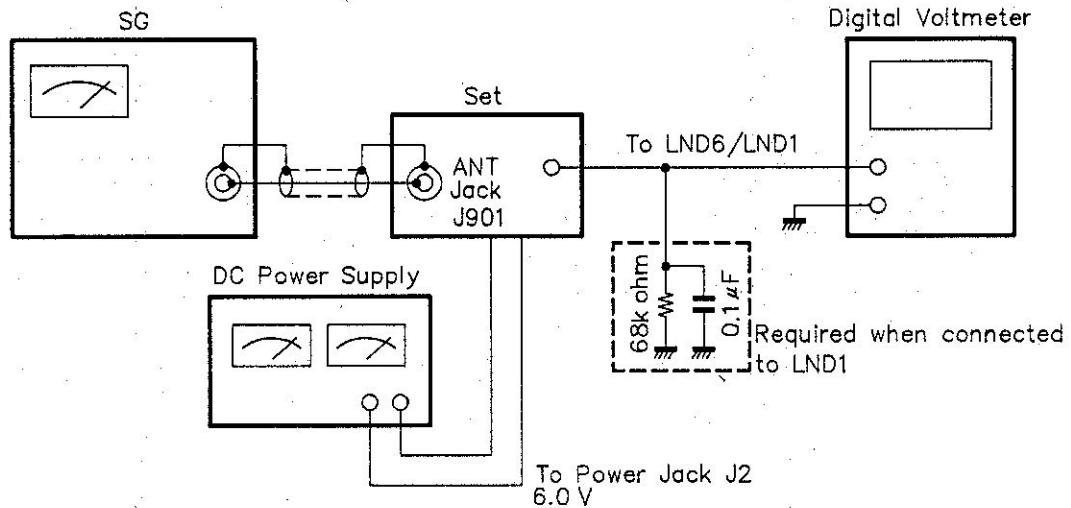
Step	Preset to	Adjustment	Result
1	CH1	CT1	Connect the frequency counter to LND3. (See Page 19 for the position.) Adjust CT1 to obtain 406.2 MHz $\pm$ 100 Hz.

Alignment Point Locations (RF PCB)



ALIGNMENT OF WFM DISCRIMINATOR/IF

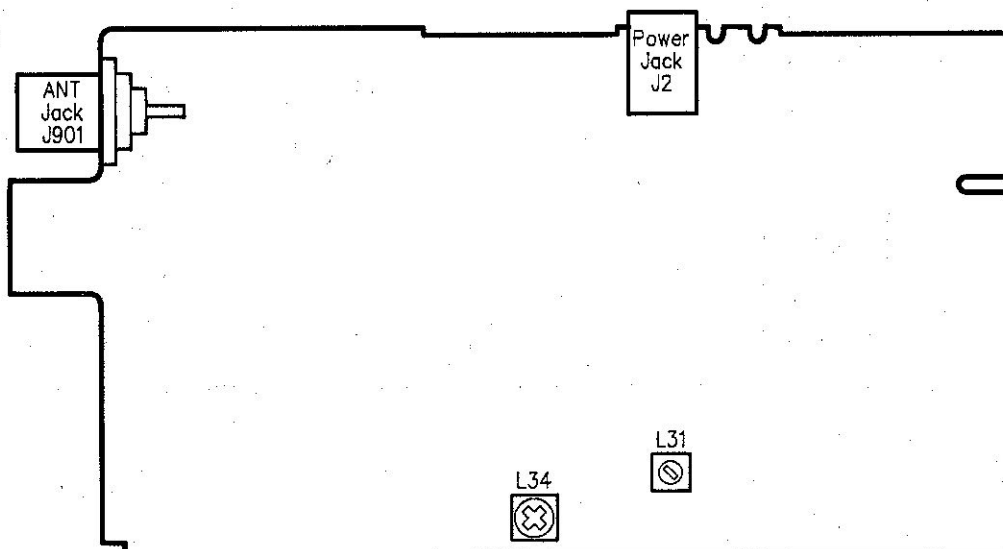
Test Equipment Required and Connections



Alignment Procedure

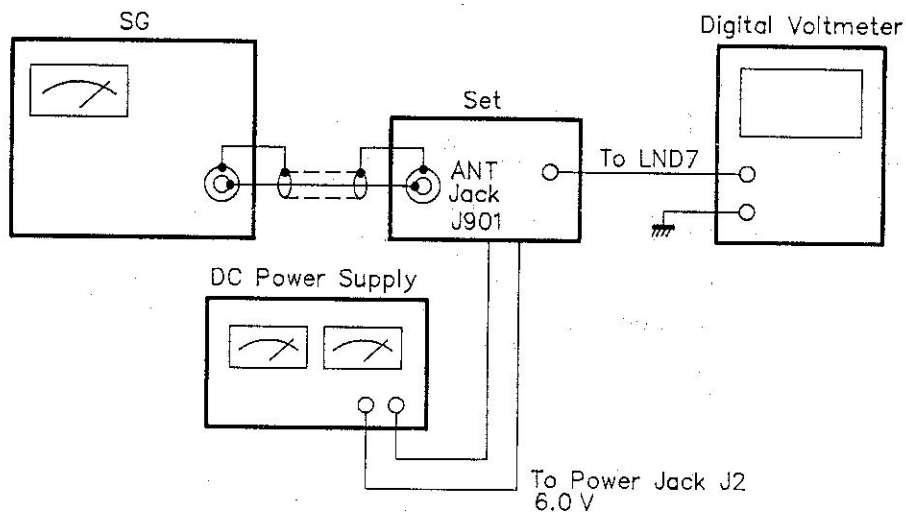
Step	Preset to	Adjustment	Result
1	CH3 SG: 62.450 MHz 100 μ V input No modulation	L34	Connect the digital voltmeter to LND6. (See Page 19 for the position.) Adjust L34 to obtain 1.2 V $\pm$ 0.05 V DC.
2	CH3 SG: 62.450 MHz 100 μ V input WFM 1 kHz $\pm$ 22.5 kHz dev.	L31	Connect the digital voltmeter to LND1. (See Page 19 for the position.) Adjust L31 to obtain the maximum reading on the digital voltmeter. (Typical voltage: 1.25 V.)

Alignment Point Locations (RF PCB)



ALIGNMENT OF NFM DISCRIMINATOR

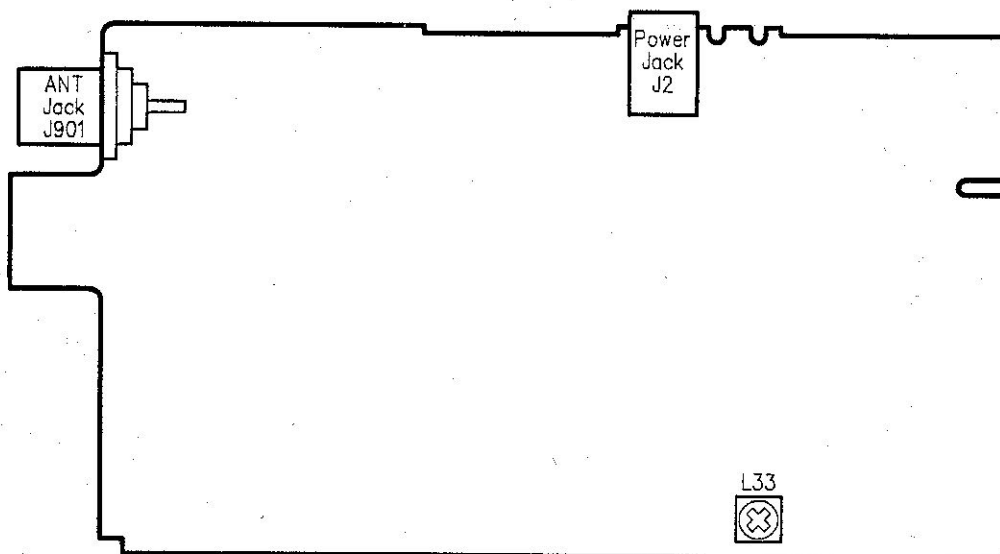
Test Equipment Required and Connections



Alignment Procedure

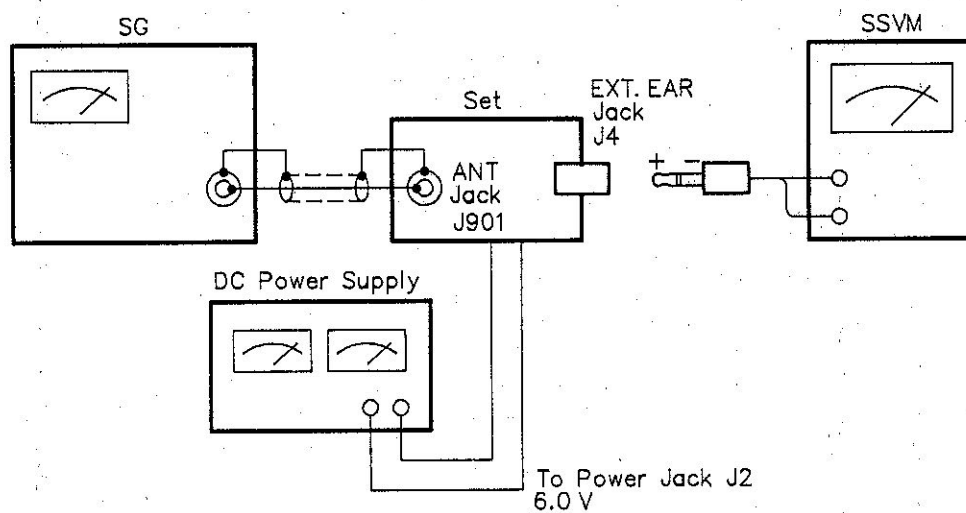
Step	Preset to	Adjustment	Result
1	CH2 SG: 40.840 MHz 100 μ V No modulation	L33	Connect the digital voltmeter to LND7. (See Page 19 for the position.) Adjust L33 to obtain 1.5 V $\pm$ 0.05 V DC.

Alignment Point Locations (RF PCB)



ALIGNMENT OF NFM/AM IF

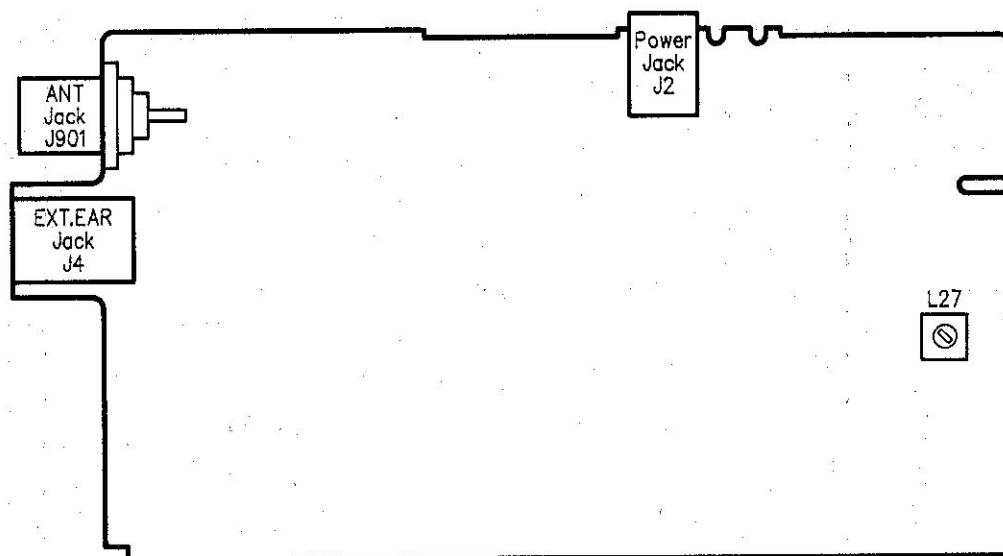
Test Equipment Required and Connections



Alignment Procedure

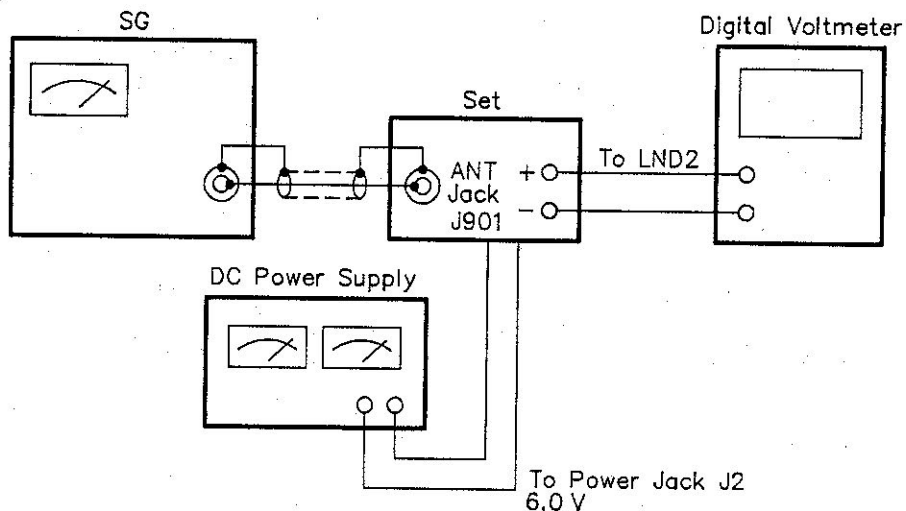
Step	Preset to	Adjustment	Result
1	CH2 SG: 40.840 MHz 12 dB SINAD ±6 kHz modulation	L27	Adjust L27 to obtain the maximum reading on the SSVM.

Alignment Point Locations (RF PCB)



ALIGNMENT OF AGC

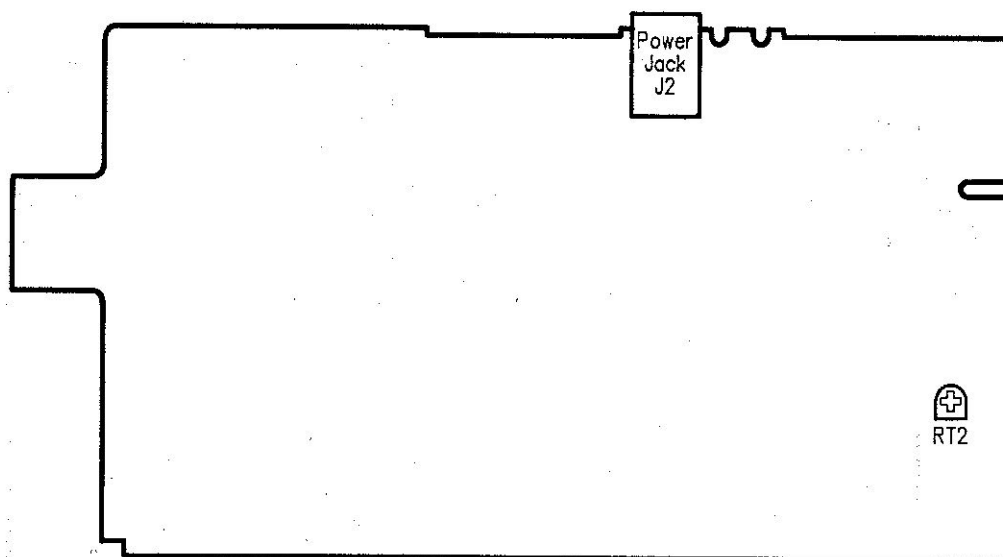
Test Equipment Required and Connections



Alignment Procedure

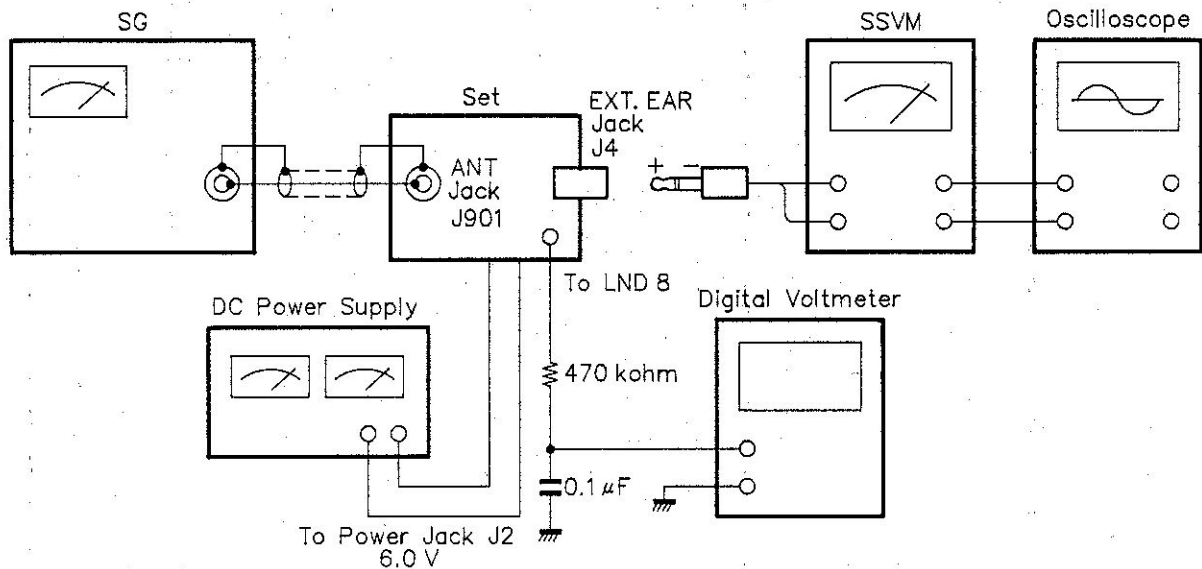
Step	Preset to	Adjustment	Result
1	CH5 SG: 127.175 MHz 20 μ V input AM 1 kHz 60% mod.	RT2	Connect the digital voltmeter to LND2. (See Page 19 for the position.) Adjust RT2 to obtain 1.0 V $\pm$ 0.5 V DC.

Alignment Point Location (RF PCB)



ALIGNMENT OF SQUELCH

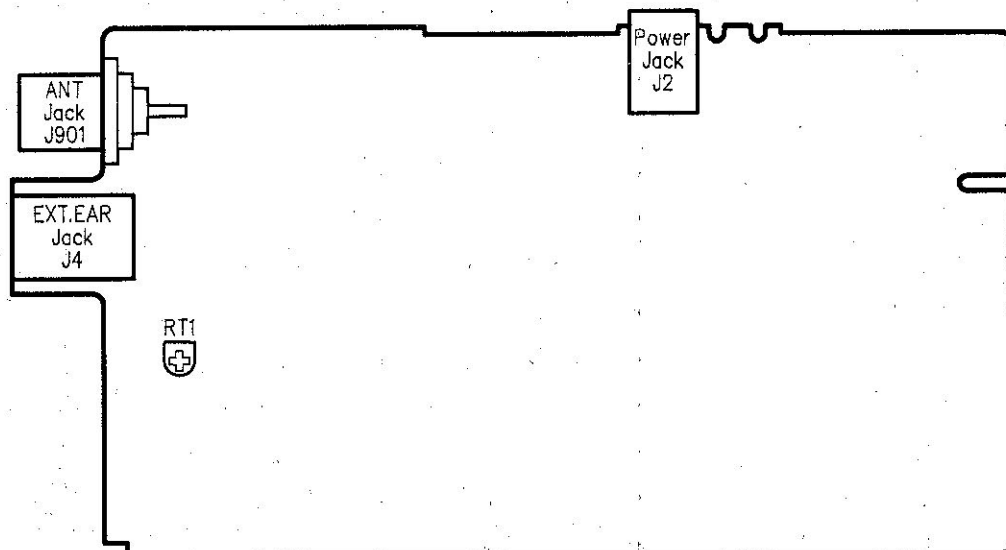
Test Equipment Required and Connections



Alignment Procedure

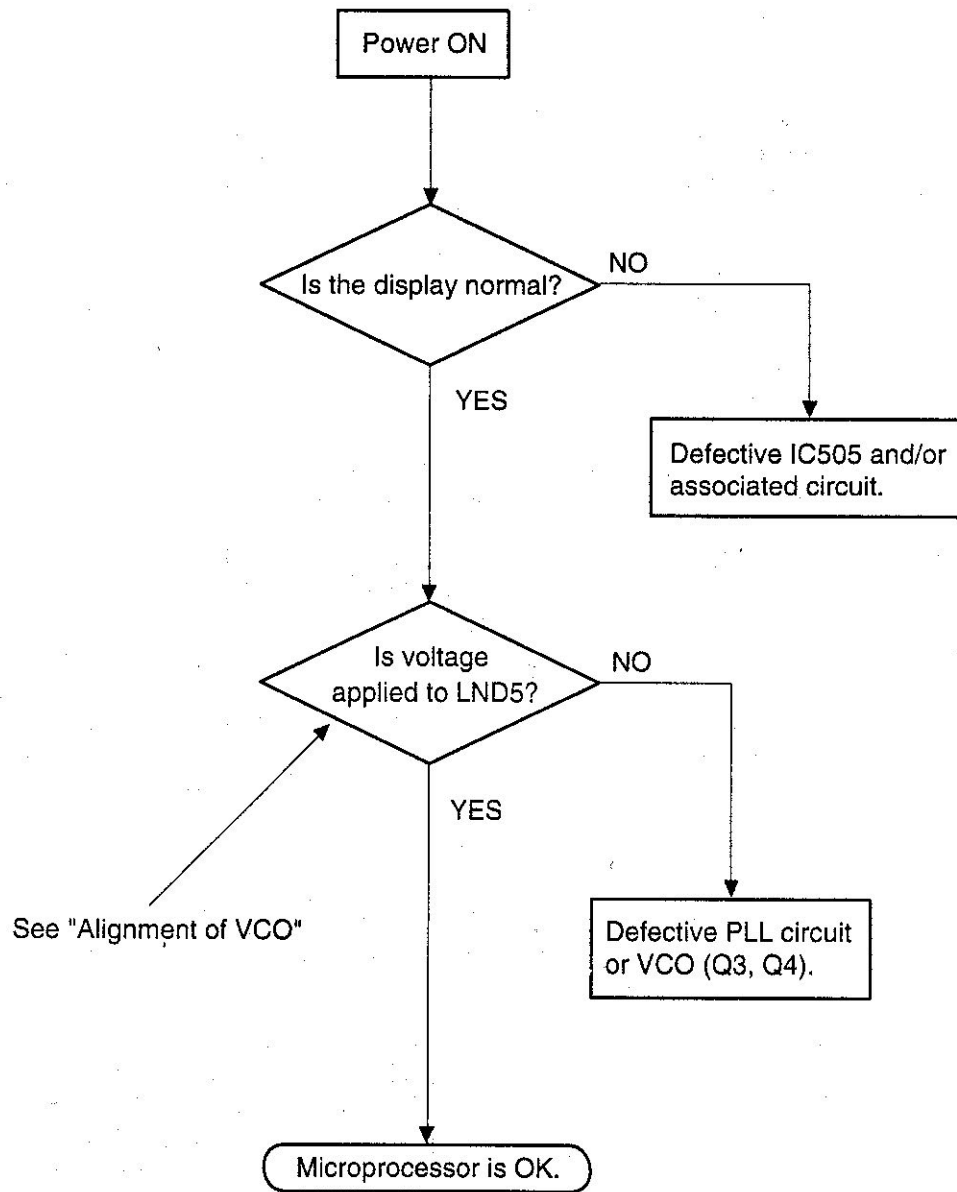
Step	Preset to	Adjustment	Result
1	CH2 SG: 40.840 MHz NFM No modulation Squelch: CW	RT1	Set the SG level so that the voltage at LND8 is $1.2 \text{ V} \pm 0.05 \text{ V DC}$. Adjust RT1 slowly until the squelch opens.

Alignment Point Location (RF PCB)

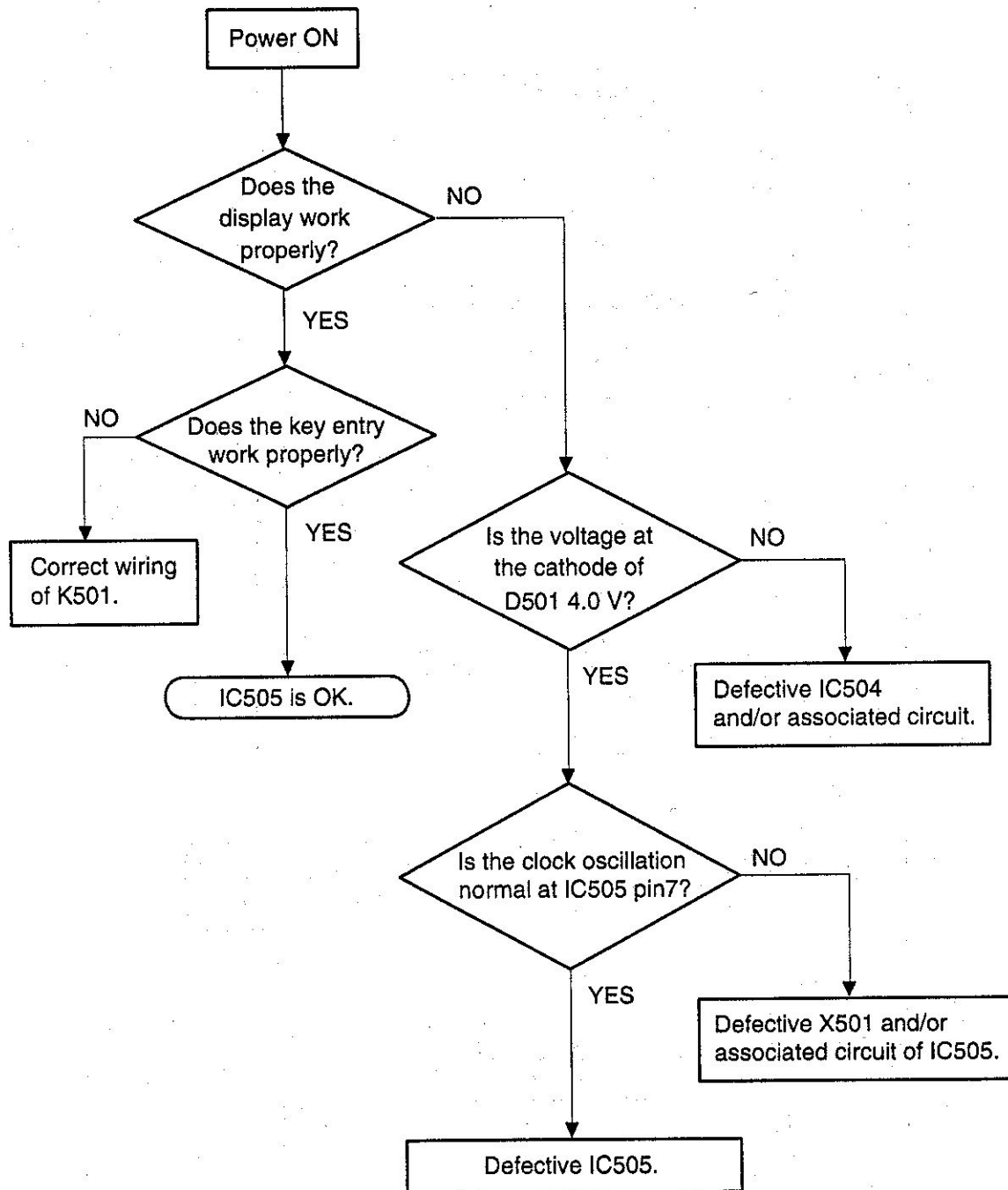


TROUBLESHOOTING

RECEPTION CHECK

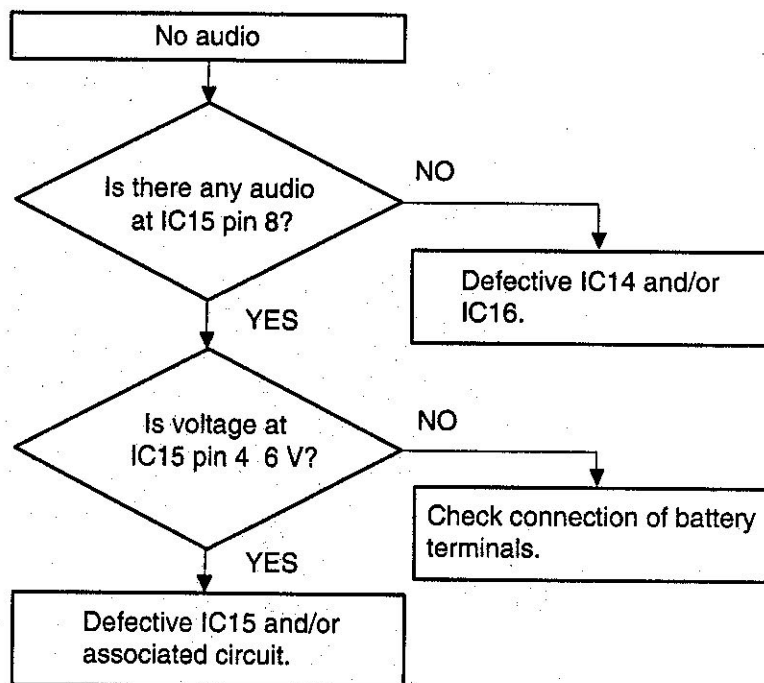


MICROPROCESSOR CHECK



Note: While checking the above items, the microprocessor might "lock up." If so, turn the power switch OFF and then ON and restart to check.

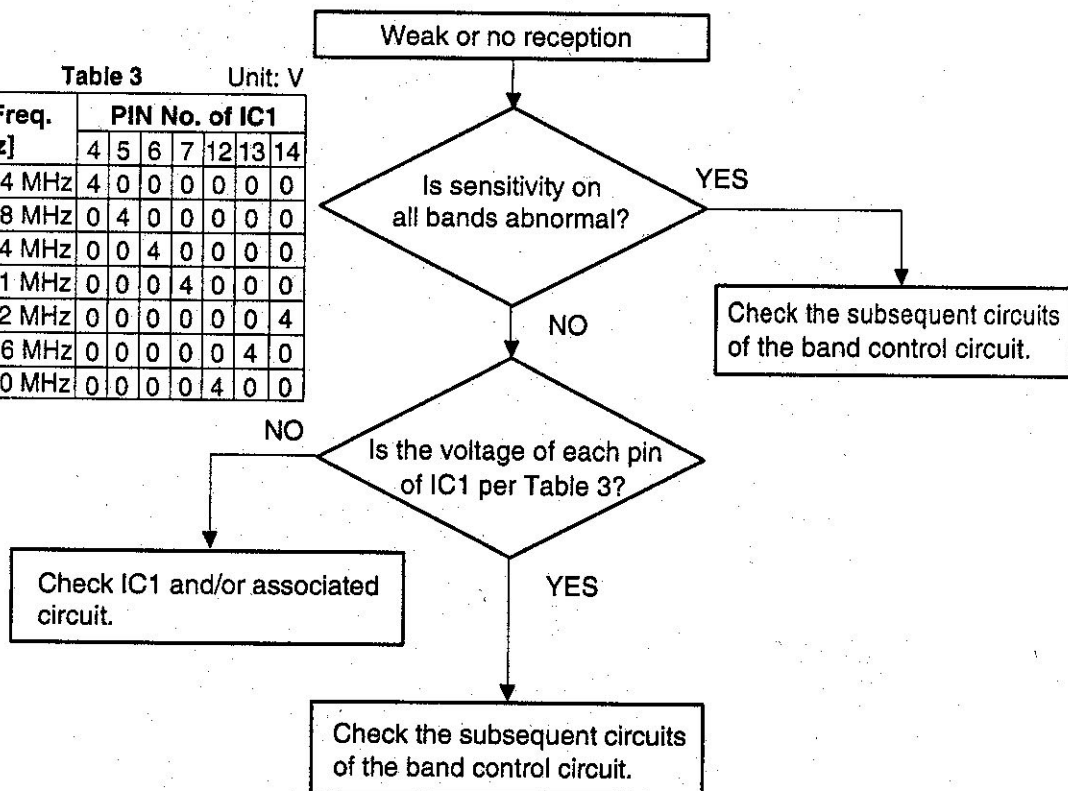
AUDIO SECTION



RF SECTION

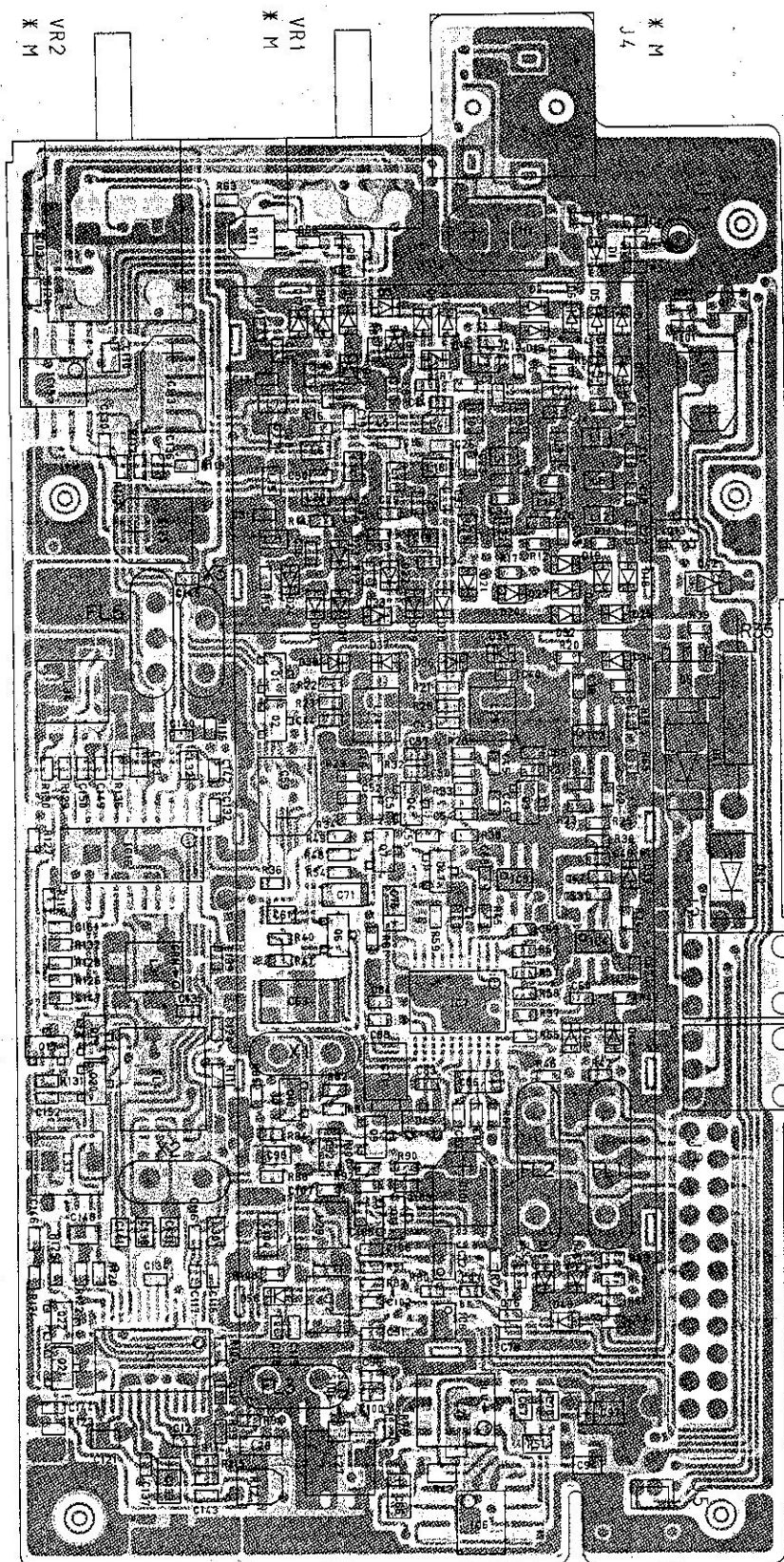
Table 3 Unit: V

RF Freq. [MHz]	PIN No. of IC1							
	4	5	6	7	12	13	14	
25~54 MHz	4	0	0	0	0	0	0	
54~118 MHz	0	4	0	0	0	0	0	
118~174 MHz	0	0	4	0	0	0	0	
174~311 MHz	0	0	0	4	0	0	0	
311~512 MHz	0	0	0	0	0	0	4	
512~806 MHz	0	0	0	0	0	4	0	
806~1300 MHz	0	0	0	0	4	0	0	

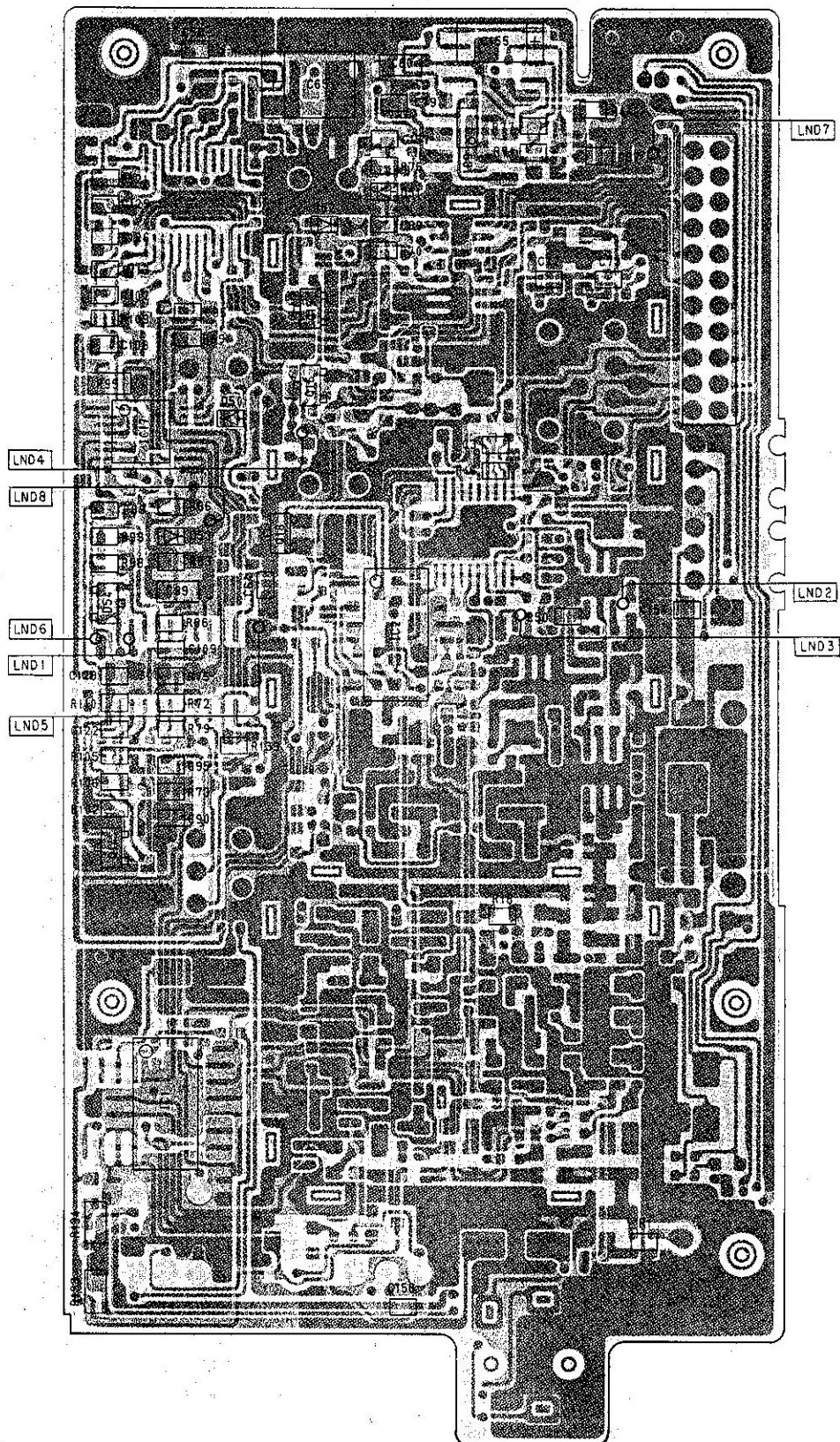


PRINTED CIRCUIT BOARDS

RF

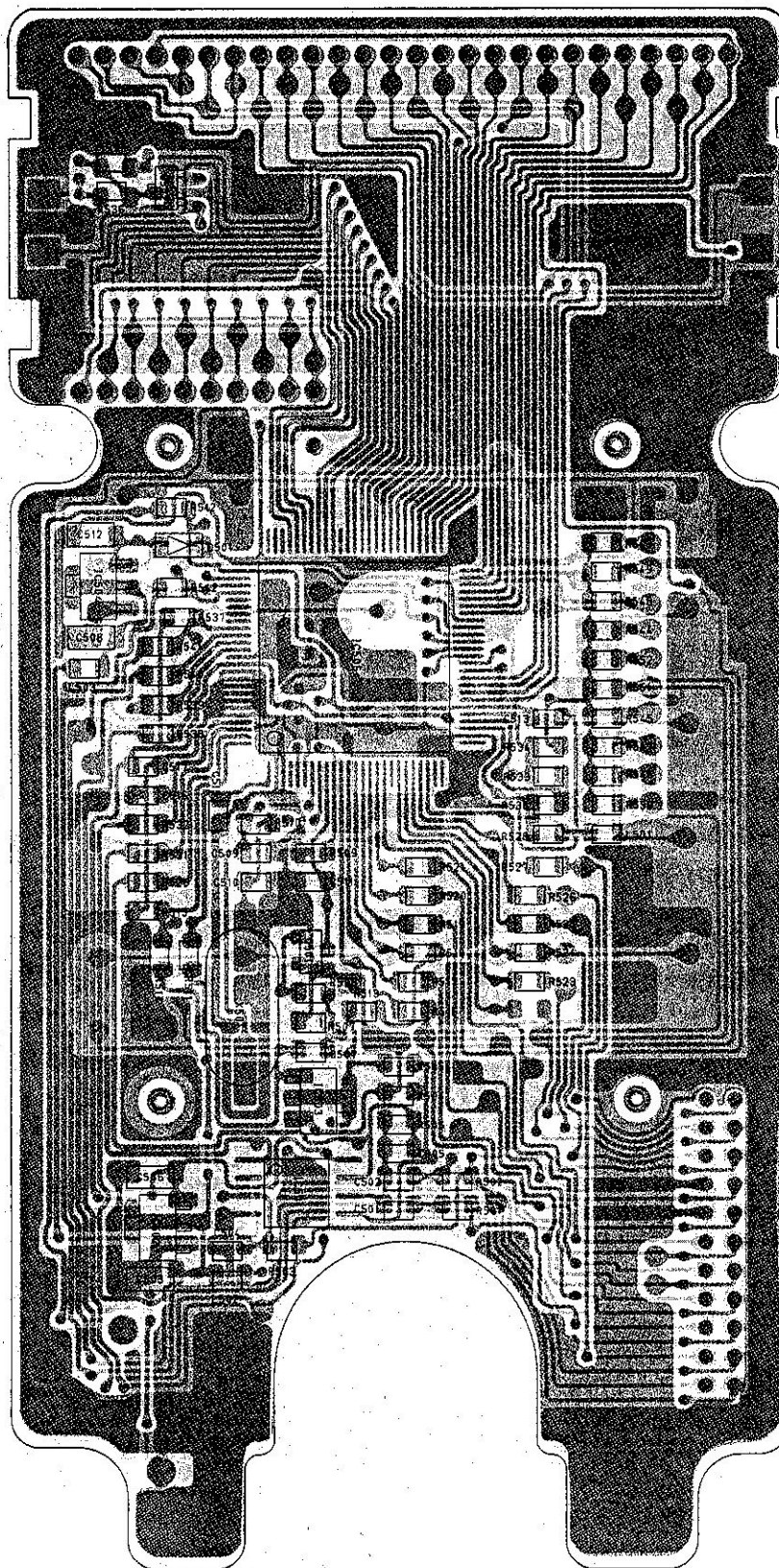


Top View

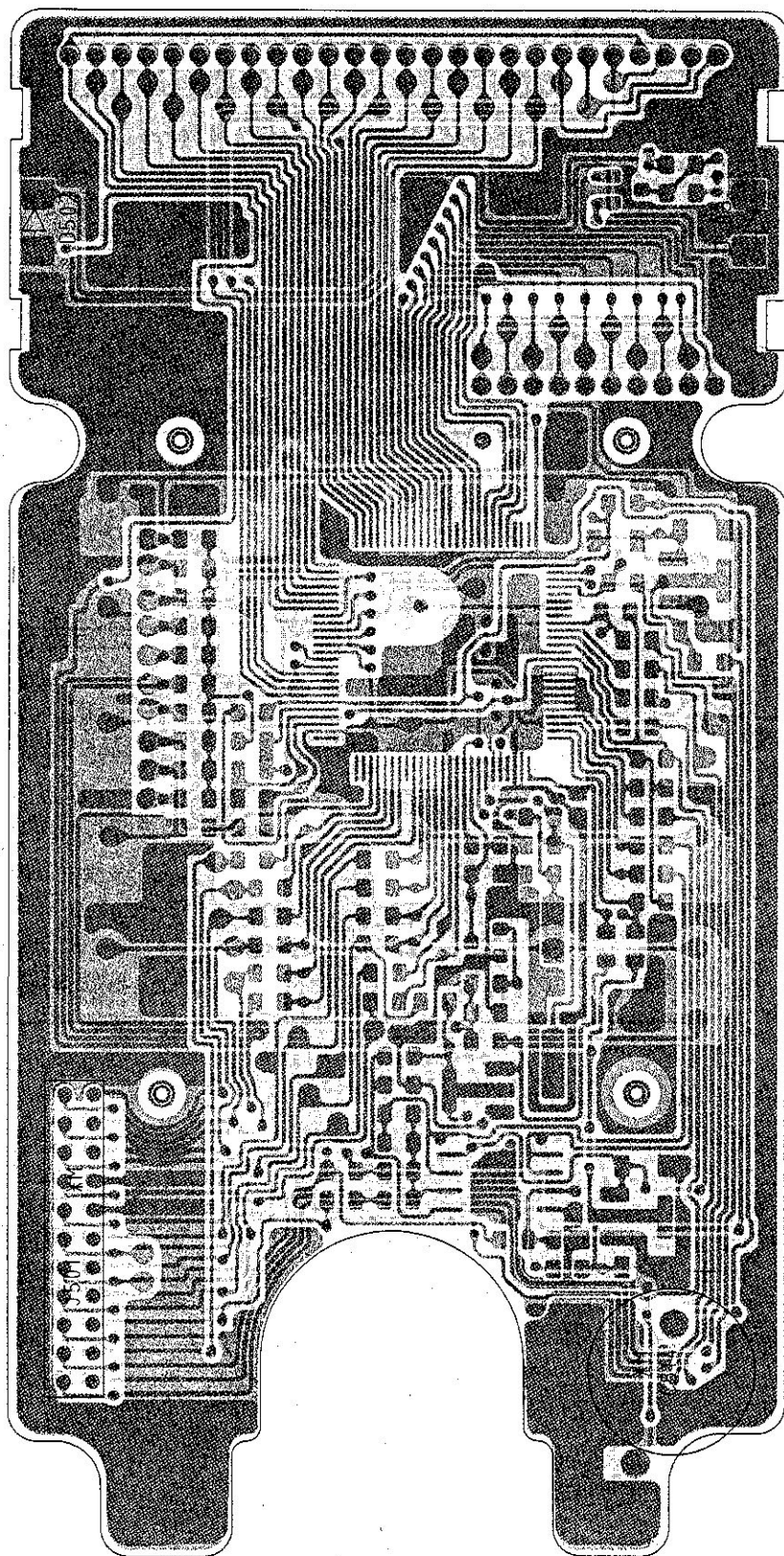


Bottom View

LOGIC



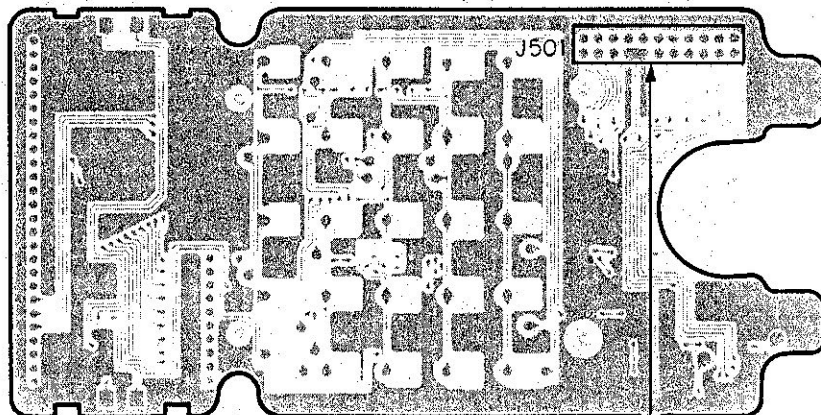
Top View



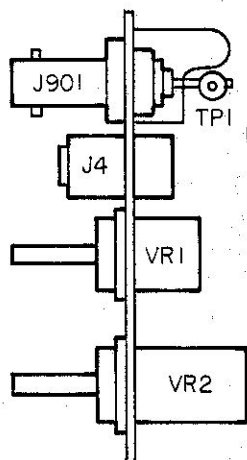
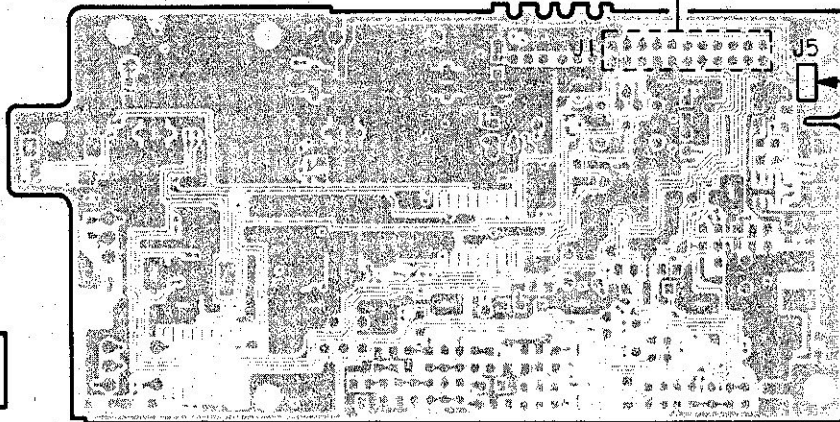
Bottom View

WIRING DIAGRAM

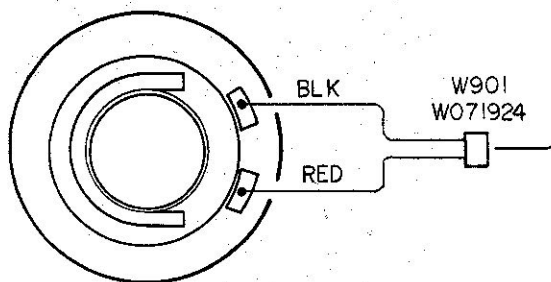
LOGIC PCB



RF PCB



SP901
SP-326

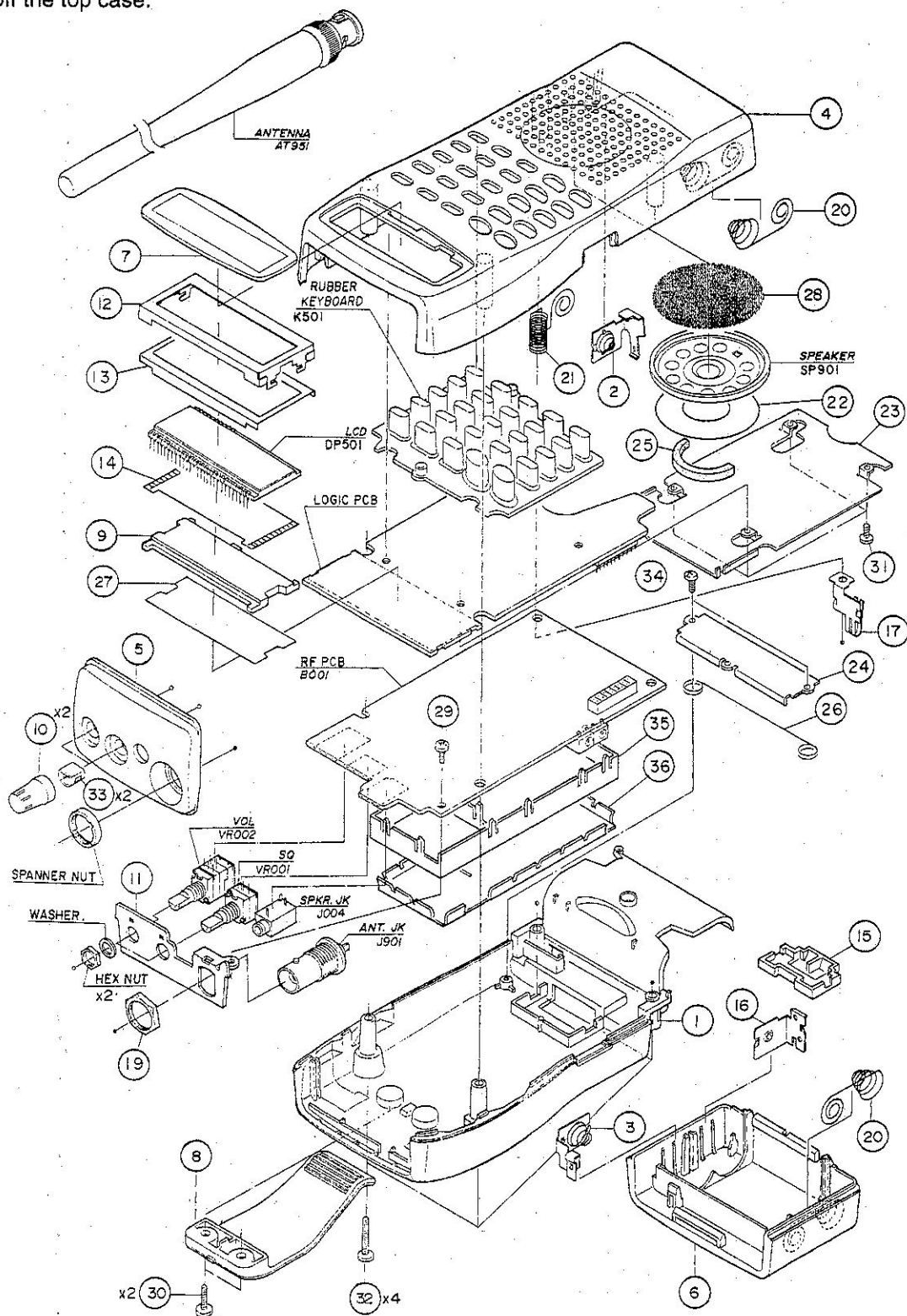


NOTES

EXPLODED VIEW AND DISASSEMBLY INSTRUCTIONS

To remove the front case and rear case,
remove four screws (32) from the rear of the unit.

To remove the top case, pull out the two
knobs (10) and the spanner nut from the top case.
Then pull off the top case.



Note: Parts with reference numbers are listed in the "Mechanical Parts List."
Other parts are listed in the "Electrical Parts List."

MECHANICAL PARTS LIST

Ref. No.	Description	RS Part No.	Mfr's Part No.
1	Case, Rear (Comp)	ABS, Dark Gray Silk	GCAS131851Z
2	Terminal, Battery (Comp)		HTML431942Z
3	Terminal, Battery (Comp)		HTML431862Z
4	Case, Front	ABS, Dark Gray Silk	GCAS131850Z
	Case, Front for Canada/UK	ABS, Dark Gray Silk	GCAS350951Z
5	Case, Top	ABS, Dark Gray Silk	GCAS331852Z
6	Case, Battery	ABS, Dark Gray	GCAS231854Z
7	Display Window	PMMA Silk	GCAS431853Z
8	Belt Clip	PC, Dark Gray	GETC329513Z
9	Lighting Plate	PMMA	GETC429586Z
10	Knob	ABS, Black	GNBZ431856Z
11	Chassis	SECC 1t Non-Oil	HCSY431855Z
12	Case, LCD	SPTE 0.3t	HHDZ329595Z
13	Insulation Plate	Polyester Film, 0.1t	RETC430423A
14	LCD Paper		RETC430039Z
15	Knob, Release	ABS, Dark Gray	GNBZ431857Z
16	Terminal, Battery	C5191(PBP) 0.25t	HTML431860Z
17	Terminal, Battery	C5191(PBP) 0.25t	HTML431859Z
18	Not Used		
19	Nut	C3601BD M11	MNUT429506Z
20	Spring, Terminal	SUS304 WPB	NSPZ431915Z
21	Spring, Terminal	SWIC-F	NSPZ431858Z
22	Insulation Plate	Mylar* 0.1t	RZEB430626Z
23	Shield Plate	SPTE 0.3t	HSDC431953Z
24	Holder, Button	SECC 0.8t MFZN-3	HHDZ431863Z
25	Cushion	Moltprene	RCUM417274Z
26	Spring, Coil	SWIC-F D0.6	NSPZ431864Z
27	Reflector	Yupo Paper, 0.15t	RETC430436Z
28	Speaker Net	Himelon, Black	RNTH430040Z
29	Screw, Bind HD +	M2.6 x 6 NI	SSCW192606N
30	Screw, Bind HD +	M3 x 6 BZMC	SSCW193006D
31	Screw, P Tight Bind HD +	D2 x 6 NI	SSCW802006N
32	Screw, P Tight Bind HD +	D2.6 x 20 BZMC	SSCW802620D
33	Spring Plate, Knob	D6	TSTD0200006
34	Screw, P Tight Bind HD +	D2.6 x 6 NI	SSCW802606N
35	Shield, Case	SPTE 0.3t	HSDC331951Z
36	Shield Cover	SPTE 0.3t	HSDC431952Z
	Front Case Assembly (Ref. No. 2, 4, 7, 20, 21, and 28)		AB249ZPBC AB249APBC**
	Rear Case Assembly (Ref. No. 1, 15, 17, 24, 26, and 34)		AB249ZPBD
	Knob Assembly (Ref. No. 10 and 33)		AB249ZPBE
	Battery Case Assembly (Ref. No. 3, 6, 16, and 20)		AB249ZPBF
	Belt Clip Kit (Ref. No. 8 and 30)		BLCPKB249ZP
	Hardware Kit (Ref. No. 31 and 32)		HDWRKB249ZP

* Mylar is a registered trademark of E.I. DuPont de Nemours and Company.

** For Canada/UK

(Reference numbers in this Mechanical Parts List correspond with the numbers in the "Exploded View and Disassembly Instructions".)

ELECTRICAL PARTS LIST

RF PCB ASSEMBLY

Ref. No.	Description						RS Part No.	Mfr's Part No.
Assembly, PCB, RF								
Consists of the following:								AB249ZPBA
Capacitors								
Notes: All ceramic capacitors are Multilayer (1608) Tape type, unless otherwise specified. The following codes indicate variations of capacitors against temperatures: B=±10%, CH=0±60 ppm/°C, SL=+350 ppm/°C~1000 ppm/°C, UJ=-750 ppm/°C ±120 ppm/°C								
C001	Ceramic	0.001 μF	50 V	±10%	B	Tape		BCML811025Z
C002	Ceramic	470 pF	50 V	±5%	CH	Tape		BCMM814714Z
C003	Ceramic (2125)	0.001 μF	50 V	±10%	B	Tape		BCXT811025Z
C004	Ceramic	4 pF	50 V	±0.25%	CH	Tape		BCMM814091Z
C005	Ceramic	470 pF	50 V	±5%	CH	Tape		BCMM814714Z
C006	Ceramic	470 pF	50 V	±5%	CH	Tape		BCMM814714Z
C007	Ceramic	470 pF	50 V	±5%	CH	Tape		BCMM814714Z
C008	Ceramic	470 pF	50 V	±5%	CH	Tape		BCMM814714Z
C009	Ceramic	470 pF	50 V	±5%	CH	Tape		BCMM814714Z
C010	Ceramic	470 pF	50 V	±5%	CH	Tape		BCMM814714Z
C011	Ceramic	2 pF	50 V	±0.25%	CK	Tape		BCMS812091Z
C012	Ceramic	4 pF	50 V	±0.25%	CH	Tape		BCMM814091Z
C013	Ceramic	7 pF	50 V	±0.5%	CH	Tape		BCMM817092Z
C014	Ceramic	12 pF	50 V	±5%	CH	Tape		BCMM811204Z
C015	Ceramic	33 pF	50 V	±5%	CH	Tape		BCMM813304Z
C016	Ceramic	33 pF	50 V	±5%	CH	Tape		BCMM813304Z
C017	Ceramic	82 pF	50 V	±5%	CH	Tape		BCMM818204Z
C018	Ceramic	2 pF	50 V	±0.25%	CK	Tape		BCMS812091Z
C019	Ceramic	27 pF	50 V	±5%	CH	Tape		BCMM812704Z
C020	Ceramic	33 pF	50 V	±5%	CH	Tape		BCMM813304Z
C021	Ceramic	5 pF	50 V	±0.25%	CH	Tape		BCMM815091Z
C022	Ceramic	4 pF	50 V	±0.25%	CH	Tape		BCMM814091Z
C023	Ceramic	9 pF	50 V	±0.5%	CH	Tape		BCMM819092Z
C024	Ceramic	6 pF	50 V	±0.5%	CH	Tape		BCMM816092Z
C025	Ceramic	7 pF	50 V	±0.5%	CH	Tape		BCMM817092Z
C026	Ceramic	4 pF	50 V	±0.25%	CH	Tape		BCMM814091Z
C027	Ceramic	15 pF	50 V	±5%	CH	Tape		BCMM811504Z
C028	Ceramic	27 pF	50 V	±5%	CH	Tape		BCMM812704Z
C029	Ceramic	33 pF	50 V	±5%	CH	Tape		BCMM813304Z
C030	Ceramic	33 pF	50 V	±5%	CH	Tape		BCMM813304Z
C031	Ceramic	82 pF	50 V	±5%	CH	Tape		BCMM818204Z
C032	Ceramic	12 pF	50 V	±5%	CH	Tape		BCMM811204Z
C033	Ceramic	18 pF	50 V	±5%	CH	Tape		BCMM811804Z
C034	Ceramic	470 pF	50 V	±5%	CH	Tape		BCMM814714Z
C035	Ceramic	470 pF	50 V	±5%	CH	Tape		BCMM814714Z
C036	Ceramic	470 pF	50 V	±5%	CH	Tape		BCMM814714Z
C037	Ceramic	470 pF	50 V	±5%	CH	Tape		BCMM814714Z
C038	Ceramic	470 pF	50 V	±5%	CH	Tape		BCMM814714Z
C039	Ceramic	0.001 μF	50 V	±10%	B	Tape		BCML811025Z
C040	Ceramic	2 pF	50 V	±0.25%	CK	Tape		BCMS812091Z
C041	Ceramic	470 pF	50 V	±5%	CH	Tape		BCMM814714Z
C042	Ceramic	470 pF	50 V	±5%	CH	Tape		BCMM814714Z
C043	Ceramic	6 pF	50 V	±0.5%	CH	Tape		BCMM816092Z

Ref. No.	Description						RS Part No.	Mfr's Part No.
C044	Ceramic	6 pF	50 V	±0.5%	CH	Tape		BCMM816092Z
C045	Ceramic	22 pF	50 V	±5%	CH	Tape		BCMM812204Z
C046	Ceramic	22 pF	50 V	±5%	CH	Tape		BCMM812204Z
C047	Ceramic	0.001 µF	50 V	±10%	B	Tape		BCML811025Z
C048	Ceramic	470 pF	50 V	±5%	CH	Tape		BCMM814714Z
C049	Ceramic	4 pF	50 V	±0.25%	CH	Tape		BCMM814091Z
C050	Ceramic	2 pF	50 V	±0.25%	CK	Tape		BCMS812091Z
C051	Ceramic	4 pF	50 V	±0.25%	CH	Tape		BCMM814091Z
C052	Ceramic	4 pF	50 V	±0.25%	CH	Tape		BCMM814091Z
C053	Ceramic	0.001 µF	50 V	±10%	B	Tape		BCML811025Z
C054	Ceramic	1 pF	50 V	±0.25%	CK	Tape		BCMS811091Z
C055	Ceramic	1 pF	50 V	±0.25%	CK	Tape		BCMS811091Z
C056	Ceramic	100 pF	50 V	±5%	CH	Tape		BCMM811014Z
C057	Ceramic	100 pF	50 V	±5%	CH	Tape		BCMM811014Z
C058	Ceramic (2125)	0.1 µF	25 V	±10%	B	Tape		BCXT511045Z
C059	Electrolytic	47 µF	6.3 V	±20%	C-258			BCFZ904706Z
C060	Ceramic	0.001 µF	50 V	±10%	B	Tape		BCML811025Z
C061	Chip Film	0.0018 µF	50 V	±5%	C-264			BCTG811824Z
C062	Ceramic	0.001 µF	50 V	±10%	B	Tape		BCML811025Z
C063	Chip Film	0.1 µF	50 V	±5%	C-264			BCTG811044Z
C064	Ceramic (2125)	0.1 µF	25 V	±10%	B	Tape		BCXT511045Z
C065	Tantalum Chip	10 µF	35V	±20%	C-284	Tape		BCKT661006Z
C066	Tantalum Chip	10 µF	7 V	±10%	C-241	Tape		BCSS951005Z
C067	Ceramic (2125)	0.022 µF	50 V	±10%	B	Tape		BCXT812235Z
C068	Ceramic	0.001 µF	50 V	±10%	B	Tape		BCML811025Z
C069	Ceramic	0.001 µF	50 V	±10%	B	Tape		BCML811025Z
C070	Ceramic (2125)	0.1 µF	25 V	±10%	B	Tape		BCXT511045Z
C071	Chip Film	0.0047 µF	50 V	±5%	C-264			BCTG814724Z
C072	Ceramic (2125)	0.001 µF	50 V	±10%	B	Tape		BCXT811025Z
C073	Ceramic (2125)	0.001 µF	50 V	±10%	B	Tape		BCXT811025Z
C074	Ceramic	0.001 µF	50 V	±10%	B	Tape		BCML811025Z
C075	Tantalum Chip	10 µF	7 V	±10%	C-241	Tape		BCSS951005Z
C076	Ceramic	0.001 µF	50 V	±10%	B	Tape		BCML811025Z
C077	Ceramic	0.001 µF	50 V	±10%	B	Tape		BCML811025Z
C078	Ceramic	0.001 µF	50 V	±10%	B	Tape		BCML811025Z
C079	Ceramic (2125)	0.1 µF	25 V	±10%	B	Tape		BCXT511045Z
C080	Ceramic (3216)	1 µF	16 V	+80%/-20%	F	Tape		BCXF311050Z
C081	Ceramic	0.001 µF	50 V	±10%	B	Tape		BCML811025Z
C082	Ceramic	0.01 µF	50 V	±10%	B	Tape		BCML811035Z
C083	Ceramic	0.01 µF	50 V	±10%	B	Tape		BCML811035Z
C084	Ceramic	27 pF	50 V	±5%	CH	Tape		BCMM812704Z
C085	Ceramic (2125)	0.0047 µF	50 V	±10%	B	Tape		BCXT814725Z
C086	Tantalum Chip	10 µF	7 V	±10%	C-241	Tape		BCSS951005Z
C087	Ceramic	0.1 µF	25 V	±10%	B	Tape		BCXT511045Z
C088	Ceramic	33 pF	50 V	±5%	CH	Tape		BCMM813304Z
C089	Ceramic (2125)	47 pF	50 V	±5%	CH	Tape		BCBH814704Z
C090	Ceramic (2125)	0.047 µF	50 V	±10%	B	Tape		BCXT814735Z
C091	Ceramic	0.001 µF	50 V	±10%	B	Tape		BCML811025Z
C092	Chip Film	0.1 µF	16 V	±5%	C-264			BCTG311044Z
C093	Ceramic	0.001 µF	50 V	±10%	B	Tape		BCML811025Z
C094	Ceramic (2125)	0.1 µF	25 V	±10%	B	Tape		BCXT511045Z
C095	Ceramic (2125)	0.047 µF	50 V	±10%	B	Tape		BCXT814735Z

Ref. No.	Description						RS Part No.	Mfr's Part No.
C096	Ceramic	4 pF	50 V	±0.25%	CH	Tape		BCMM814091Z
C097	Tantalum Chip	10 µF	7 V	±10%	C-241	Tape		BCSS951005Z
C098	Chip Film	0.0018 µF	50 V	±5%	C-264			BCTG811824Z
C099	Ceramic (3216)	0.22 µF	16 V	±10%		Tape		BCBZ312245Z
C100	Ceramic	4 pF	50 V	±0.25%	CH	Tape		BCMM814091Z
C101	Electrolytic	47 µF	6.3 V	±20%	C-258			BCFZ904706Z
C102	Ceramic	1 pF	50 V	±0.25%	CK	Tape		BCMS811091Z
C103	Ceramic	0.001 µF	50 V	±10%	B	Tape		BCML811025Z
C104	Chip Film	0.0047 µF	50 V	±5%	C-264			BCTG814724Z
C105	Ceramic	8 pF	50 V	±0.5%	CH	Tape		BCMM818092Z
C106	Ceramic	5 pF	50 V	±0.25%	CH	Tape		BCMM815091Z
C107	Ceramic	10 pF	50 V	±0.5%	CH	Tape		BCMM811002Z
C108	Ceramic (2125)	0.022 µF	50 V	±10%	B	Tape		BCXT812235Z
C109	Ceramic (2125)	150 pF	50 V	±5%	CH	Tape		BCBH811514Z
C110	Ceramic (2125)	0.1 µF	25 V	±10%	B	Tape		BCXT511045Z
C111	Electrolytic	100 µF	10 V	±20%	C-258			BCFZ111016Z
C112	Ceramic	0.001 µF	50 V	±10%	B	Tape		BCML811025Z
C113	Electrolytic	100 µF	10 V	±20%	C-258			BCFZ111016Z
C114	Electrolytic	10 µF	16 V	±20%	C-258			BCFZ311006Z
C115	Ceramic	56 pF	50 V	±5%	CH	Tape		BCMM815604Z
C116	Ceramic	39 pF	50 V	±5%	CH	Tape		BCMM813904Z
C117	Ceramic	0.001 µF	50 V	±10%	B	Tape		BCML811025Z
C118	Ceramic	47 pF	50 V	±5%	CH	Tape		BCMM814704Z
C119	Ceramic	10 pF	50 V	±0.5%	CH	Tape		BCMM811002Z
C120	Ceramic (2125)	0.1 µF	25 V	±10%	B	Tape		BCXT511045Z
C121	Ceramic (2125)	0.1 µF	25 V	±10%	B	Tape		BCXT511045Z
C122	Ceramic (2125)	220 pF	50 V	±5%	CH	Tape		BCBH812214Z
C123	Ceramic (2125)	0.1 µF	25 V	±10%	B	Tape		BCXT511045Z
C124	Ceramic	7 pF	50 V	±0.5%	CH	Tape		BCMM817092Z
C125	Electrolytic	4.7 µF	35 V	±20%	C-258			BCFZ664796Z
C126	Ceramic (2125)	220 pF	50 V	±5%	CH	Tape		BCBH812214Z
C127	Ceramic	0.0015 µF	50 V	±10%	B	Tape		BCML811525Z
C128	Ceramic (2125)	220 pF	50 V	±5%	CH	Tape		BCBH812214Z
C129	Ceramic (2125)	220 pF	50 V	±5%	CH	Tape		BCBH812214Z
C130	Ceramic	0.01 µF	50 V	±10%	B	Tape		BCML811035Z
C131	Ceramic (2125)	0.1 µF	25 V	±10%	B	Tape		BCXT511045Z
C132	Ceramic	18 pF	50 V	±5%	CH	Tape		BCMM811804Z
C133	Tantalum Chip	10 µF	7 V	±10%	C-241	Tape		BCSS951005Z
C134	Ceramic	0.001 µF	50 V	±10%	B	Tape		BCML811025Z
C135	Ceramic	18 pF	50 V	±5%	CH	Tape		BCMM811804Z
C136	Ceramic	10 pF	50 V	±0.5%	CH	Tape		BCMM811002Z
C137	Ceramic	0.022 µF	25 V	±10%	B	Tape		BCML512235Z
C138	Ceramic (2125)	0.1 µF	25 V	±10%	B	Tape		BCXT511045Z
C139	Ceramic	0.01 µF	50 V	±10%	B	Tape		BCML811035Z
C140	Ceramic	0.001 µF	50 V	±10%	B	Tape		BCML811025Z
C141	Ceramic (2125)	0.1 µF	25 V	±10%	B	Tape		BCXT511045Z
C142	Ceramic	120 pF	50 V	±5%	CH	Tape		BCMM811214Z
C143	Ceramic	0.0068 µF	50 V	±10%	B	Tape		BCML816825Z
C144	Ceramic	0.022 µF	25 V	±10%	B	Tape		BCML512235Z
C145	Ceramic	0.01 µF	50 V	±10%	B	Tape		BCML811035Z
C146	Ceramic	0.01 µF	50 V	±10%	B	Tape		BCML811035Z
C147	Ceramic	0.001 µF	50 V	±10%	B	Tape		BCML811025Z

Ref. No.	Description						RS Part No.	Mfr's Part No.
C148	Ceramic (2125)	0.1 μ F	25 V	$\pm 10\%$	B	Tape		BCXT511045Z
C149	Ceramic	0.022 μ F	25 V	$\pm 10\%$	B	Tape		BCML512235Z
C150	Ceramic	0.022 μ F	25 V	$\pm 10\%$	B	Tape		BCML512235Z
C151	Ceramic	0.0033 μ F	50 V	$\pm 10\%$	B	Tape		BCML813325Z
C152	Ceramic	0.001 μ F	50 V	$\pm 10\%$	B	Tape		BCML811025Z
C153	Ceramic	120 pF	50 V	$\pm 5\%$	CH	Tape		BCMM811214Z
C154	Ceramic	0.1 μ F	25 V	$\pm 10\%$	B	Tape		BCXT511045Z
C155	Tantalum Chip	4.7 μ F	35 V	$\pm 20\%$	C-284	Tape		BCKT664796Z
C156	Ceramic	0.001 μ F	50 V	$\pm 10\%$	B	Tape		BCXT811025Z
C157	Ceramic	47 pF	50 V	$\pm 5\%$	CH	Tape		BCBH814704Z

Diodes

D001	HVU131	TRF		BDAY0826001
D002	HVU131	TRF		BDAY0826001
D003	HSU277	TRF		BDAY0760001
D004	HSU277	TRF		BDAY0760001
D005	HVU131	TRF		BDAY0826001
D006	HVU131	TRF		BDAY0826001
D007	HVU131	TRF		BDAY0826001
D008	HVU131	TRF		BDAY0826001
D009	HSU277	TRF		BDAY0760001
D010	HSU277	TRF		BDAY0760001
D011	HSU277	TRF		BDAY0760001
D012	HVU131	TRF		BDAY0826001
D013	HVU131	TRF		BDAY0826001
D014	HVU131	TRF		BDAY0826001
D015	HVU131	TRF		BDAY0826001
D016	HSU277	TRF		BDAY0760001
D017	HSU277	TRF		BDAY0760001
D018	HSU277	TRF		BDAY0760001
D019	HVU131	TRF		BDAY0826001
D020	HVU131	TRF		BDAY0826001
D021	HVU131	TRF		BDAY0826001
D022	HVU131	TRF		BDAY0826001
D023	HSU277	TRF		BDAY0760001
D024	HSU277	TRF		BDAY0760001
D025	HSU277	TRF		BDAY0760001
D026	HVU131	TRF		BDAY0826001
D027	HVU131	TRF		BDAY0826001
D028	HVU131	TRF		BDAY0826001
D029	HVU131	TRF		BDAY0826001
D030	HSU277	TRF		BDAY0760001
D031	HSU277	TRF		BDAY0760001
D032	HVU131	TRF		BDAY0826001
D033	HSU277	TRF		BDAY0760001
D034	HVU131	TRF		BDAY0826001
D035	MA366-TX			BDAY0776001
D036	MA366-TX			BDAY0776001
D037	MA366-TX			BDAY0776001
D038	MA366-TX			BDAY0776001
D039	HSU277	TRF		BDAY0760001

Ref. No.	Description				RS Part No.	Mfr's Part No.
D040	Zener	DSM10C	TR			BDAY0555001
D041		DSM10C	TR			BDAY0555001
D042		HZK6B	TR			BDAY0432009
D043		HVU131	TRF			BDAY0826001
D044		HVU131	TRF			BDAY0826001
D045		HVU131	TRF			BDAY0826001
D046		HVU131	TRF			BDAY0826001
D047		HSM88AS	TL			BDAY0346001
D048		HSU277	TRF			BDAY0760001
D049	Switching	HSM88AS	TL			BDAY0346001
D050		1SS355	TE-17			BDAY0807001
D051		HSU277	TRF			BDAY0760001
D052	Switching	HSU277	TRF			BDAY0760001
D053		1SS355	TE-17			BDAY0807001
D054		1SS226	TE85L			BDAY0274001
D055	Not Used					
D056		MA366-TX				BDAY0776001
Filters						
FL001	Crystal	FL-602	NSRF	C250		BFLY0602001
FL002		FL-655	NSRF	C380		BFLY0655001
FL003		FL-581	UMF5014A			BFLY0581001
FL004	Ceramic	FL-654	PBFS455P20D			BFLY0654001
FL005		FL-582	SFSL5.5MDB			BFLY0582001
Integrated Circuits						
IC001	Not Used	TC74HC4094AF(EL)				BDEY2245003
IC002		TC74HC4094AF(EL)				BDEY2245003
IC003		UPC2747T-E3				BDEY2636003
IC004		UPC2757T-E4				BDEY2589003
IC005		UPC2715T-E3				BDEY2521003
IC006		TK11806M				BDEY0999001
IC007		M64086GP-601D				BDEY2588003
IC008		UPC2757T-E4				BDEY2589003
IC009		TK11900M TL				BDEY2448003
IC010, 011						
IC012	Not Used	UPC2715T-E3				BDEY2521003
IC013						
IC014		TK10930V-TL				BDEY2342003
IC015		TDA7233D				BDEY2587003
IC016		TK10489MTL				BDEY2374003
IC017		NJM3403AV-TE1				BDEY2421003
Jacks						
J001	Not Used					
J002						
J003						
J004						
J005						
J001	Speaker					
J002		JK-285	HEC2711-01-620			BJKY0285001
J003		JK-285	HEC2711-01-620			BJKY0285001
J004		JK-424	HSJ0836-01-500			BJKY0424001
J005		JK-459	53047-0210 2P			BJKY0459002

Ref. No.	Description				RS Part No.	Mfr's Part No.
Coils						
L001	Inductor Molded (Chip)	LZ-108	0.0068 μ H K	Tape		BLZY0108686
L002	Inductor Molded (Chip)	LZ-108	0.0068 μ H K	Tape		BLZY0108686
L003	Inductor Molded (Chip)	LZ-108	0.022 μ H K	Tape		BLZY0108227
L004	Inductor Molded (Chip)	LZ-108	0.033 μ H K	Tape		BLZY0108337
L005	Inductor Molded (Chip)	LZ-108	0.033 μ H K	Tape		BLZY0108337
L006	Inductor Molded (Chip)	LZ-0108	100 nH K	Tape		BLZY0108108
L007	Inductor Molded (Chip)	LZ-0108	220 nH K	Tape		BLZY0108228
L008	Inductor Molded (Chip)	LZ-108	0.0068 μ H K	Tape		BLZY0108686
L009	Inductor Molded (Chip)	LZ-108	0.0056 μ H K	Tape		BLZY0108566
L010	Inductor Molded (Chip)	LZ-108	0.056 μ H K	Tape		BLZY0108567
L011	Inductor Molded (Chip)	LZ-0108	150 nH K	Tape		BLZY0108158
L012	Inductor Molded (Chip)	LZ-108	0.0068 μ H K	Tape		BLZY0108686
L013	Inductor Molded (Chip)	LZ-108	0.027 μ H K	Tape		BLZY0108277
L014	Inductor Molded (Chip)	LZ-0108	150 nH K	Tape		BLZY0108158
L015	Inductor Molded (Chip)	LZ-0108	470 nH K	Tape		BLZY0108478
L016	Inductor Molded (Chip)	LZ-108	0.0068 μ H K	Tape		BLZY0108686
L017	Inductor Molded (Chip)	LZ-108	0.01 μ H K	Tape		BLZY0108107
L018	Inductor Molded (Chip)	LZ-108	0.015 μ H K	Tape		BLZY0108157
L019	Inductor Molded (Chip)	LZ-108	0.033 μ H K	Tape		BLZY0108337
L020	Inductor Molded (Chip)	LZ-0108	100 nH K	Tape		BLZY0108108
L021	Inductor Molded (Chip)	LZ-0108	220 nH K	Tape		BLZY0108228
L022	Inductor Molded (Chip)	LZ-108	0.018 μ H K	Tape		BLZY0108187
L023	Inductor Molded (Chip)	LZ-108	0.039 μ H K	Tape		BLZY0108397
L024	Inductor Molded (Chip)	LZ-132	655LY-04K=P3	21.6N		BLZY0132001
L025	Inductor Molded (Chip)	LZ-131	655LY-01M=P3	6.8NH		BLZY0131001
L026	Inductor Molded	LZ-077	1.2 mH			BLZY0077122
L027		LF-0261				BLFY0261001
L028	Inductor Molded (Chip)	LZ-087	2.2 μ H J	Tape		BLZY0087229
L029	Inductor Molded (Chip)	LZ-128	15.3 nH K	Tape		BLZY0128001
L030	Inductor Molded (Chip)	LZ-0108	470 nH K	Tape		BLZY0108478
L031		LC-247	657AN-1161BIT=P3			BLCY0247001
L032	Inductor Molded (Chip)	LZ-0108	100 nH K	Tape		BLZY0108108
L033		LF-235	614AG-0068GW=P			BLFY0235001
L034		LF-254	614BG-0799GW=P3			BLFY0254001
Transistors						
Q001		DB-538	DTC114EK	T146		BDBZ0538001
Q002		DB-538	DTC114EK	T146		BDBZ0538001
Q003		DB-711	2SC3356-R24	T1B		BDBC3356646
Q004		DB-711	2SC3356-R24	T1B		BDBC3356646
Q005		DB-126	2SB1115-YL	T1		BDBB1115333
Q006		DB-381	2SC2712-Y	TE85L		BDBC2712124
Q007	Field Effect	DC-044	2SK431IH-D	TL		BDCB0431104
Q008		DB-538	DTC114EK	T146		BDBZ0538001
Q009	Field Effect	DC-044	2SK431IH-D	TL		BDCB0431104
Q010		DB-381	2SC2712-Y	TE85L		BDBC2712124
Q011		DB-711	2SC3356-R24	T1B		BDBC3356646
Q012		DB-036	2SA1162-Y	TE85L		BDBA1162124
Q013		DB-381	2SC2712-Y	TE85L		BDBC2712124

Ref. No.	Description					RS Part No.	Mfr's Part No.
Q014	DB-381	2SC2712-Y	TE85L				BDBC2712124
Q015	DB-036	2SA1162-Y	TE85L				BDBA1162124
Q016	DB-036	2SA1162-Y	TE85L				BDBA1162124
Q017	DB-036	2SA1162-Y	TE85L				BDBA1162124
Q018	DB-036	2SA1162-Y	TE85L				BDBA1162124
Q019	DB-381	2SC2712-Y	TE85L				BDBC2712124
Q020	DB-381	2SC2712-Y	TE85L				BDBC2712124
Q021	DB-538	DTC114EK	T146				BDBZ0538001
Q022	DB-538	DTC114EK	T146				BDBZ0538001
Resistors							
R001	Carbon Fixed Chip	1 Mohm	1/10 W	±5%	Taping		BRFC011054Z
R002	Carbon Fixed Chip	1.5 kohm	1/16 W	±5%	Taping		BRFC161524Z
R003	Carbon Fixed Chip	4.7 kohm	1/16 W	±5%	Taping		BRFC164724Z
R004	Carbon Fixed Chip	3.3 kohm	1/16 W	±5%	Taping		BRFC163324Z
R005	Carbon Fixed Chip	3.3 kohm	1/16 W	±5%	Taping		BRFC163324Z
R006	Carbon Fixed Chip	3.3 kohm	1/16 W	±5%	Taping		BRFC163324Z
R007	Carbon Fixed Chip	2.2 kohm	1/16 W	±5%	Taping		BRFC162224Z
R008	Carbon Fixed Chip	2.2 kohm	1/16 W	±5%	Taping		BRFC162224Z
R009	Carbon Fixed Chip	1 kohm	1/16 W	±5%	Taping		BRFC161024Z
R010	Carbon Fixed Chip	1 kohm	1/16 W	±5%	Taping		BRFC161024Z
R011	Carbon Fixed Chip	3.3 kohm	1/16 W	±5%	Taping		BRFC163324Z
R012	Carbon Fixed Chip	3.3 kohm	1/16 W	±5%	Taping		BRFC163324Z
R013	Carbon Fixed Chip	2.2 kohm	1/16 W	±5%	Taping		BRFC162224Z
R014	Carbon Fixed Chip	1 kohm	1/16 W	±5%	Taping		BRFC161024Z
R015	Carbon Fixed Chip	1 kohm	1/16 W	±5%	Taping		BRFC161024Z
R016	Carbon Fixed Chip	10 kohm	1/10 W	±5%	Taping		BRFC011034Z
R017	Carbon Fixed Chip	3.3 kohm	1/16 W	±5%	Taping		BRFC163324Z
R018	Carbon Fixed Chip	2.2 kohm	1/10 W	±5%	Taping		BRFC012224Z
R019	Carbon Fixed Chip	1 kohm	1/16 W	±5%	Taping		BRFC161024Z
R020	Carbon Fixed Chip	1.5 kohm	1/16 W	±5%	Taping		BRFC161524Z
R021	Carbon Fixed Chip	4.7 kohm	1/16 W	±5%	Taping		BRFC164724Z
R022	Carbon Fixed Chip	4.7 kohm	1/16 W	±5%	Taping		BRFC164724Z
R023	Carbon Fixed Chip	120 ohm	1/16 W	±5%	Taping		BRFC161214Z
R024	Carbon Fixed Chip	1 kohm	1/16 W	±5%	Taping		BRFC161024Z
R025	Carbon Fixed Chip	1.8 kohm	1/16 W	±5%	Taping		BRFC161824Z
R026	Carbon Fixed Chip	4.7 kohm	1/16 W	±5%	Taping		BRFC164724Z
R027	Carbon Fixed Chip	4.7 kohm	1/16 W	±5%	Taping		BRFC164724Z
R028	Carbon Fixed Chip	8.2 kohm	1/16 W	±5%	Taping		BRFC168224Z
R029	Carbon Fixed Chip	8.2 kohm	1/16 W	±5%	Taping		BRFC168224Z
R030	Carbon Fixed Chip	3.9 kohm	1/16 W	±5%	Taping		BRFC163924Z
R031	Carbon Fixed Chip	4.7 kohm	1/16 W	±5%	Taping		BRFC164724Z
R032	Carbon Fixed Chip	8.2 kohm	1/16 W	±5%	Taping		BRFC168224Z
R033	Carbon Fixed Chip	470 ohm	1/16 W	±5%	Taping		BRFC164714Z
R034	Carbon Fixed Chip	470 ohm	1/16 W	±5%	Taping		BRFC164714Z
R035	Metal Oxide	56 ohm	1 WS	±5%			BRSN005604Z
R036	Carbon Fixed Chip	100 ohm	1/16 W	±5%	Taping		BRFC161014Z
R037	Carbon Fixed Chip	100 ohm	1/16 W	±5%	Taping		BRFC161014Z
R038	Carbon Fixed Chip	100 ohm	1/16 W	±5%	Taping		BRFC161014Z
R039	Carbon Fixed Chip	330 ohm	1/16 W	±5%	Taping		BRFC163314Z
R040	Carbon Fixed Chip	22 kohm	1/16 W	±5%	Taping		BRFC162234Z

Ref. No.	Description					RS Part No.	Mfr's Part No.
R041	Carbon Fixed Chip	27 kohm	1/16 W	±5%	Taping		BRFC162734Z
R042	Carbon Fixed Chip	5.6 kohm	1/16 W	±5%	Taping		BRFC165624Z
R043	Carbon Fixed Chip	4.7 ohm	1/10 W	±5%	Taping		BRFC014794Z
R044	Carbon Fixed Chip	1 kohm	1/10 W	±5%	Taping		BRFC011024Z
R045	Carbon Fixed Chip	120 ohm	1/16 W	±5%	Taping		BRFC161214Z
R046	Carbon Fixed Chip	470 ohm	1/16 W	±5%	Taping		BRFC164714Z
R047	Carbon Fixed Chip	470 ohm	1/16 W	±5%	Taping		BRFC164714Z
R048	Carbon Fixed Chip	2.7 kohm	1/16 W	±5%	Taping		BRFC162724Z
R049	Carbon Fixed Chip	2.2 kohm	1/16 W	±5%	Taping		BRFC162224Z
R050	Carbon Fixed Chip	39 ohm	1/10 W	±5%	Taping		BRFC013904Z
R051	Carbon Fixed Chip	820 ohm	1/10 W	±5%	Taping		BRFC018214Z
R052	Carbon Fixed Chip	2.2 kohm	1/16 W	±5%	Taping		BRFC162224Z
R053	Carbon Fixed Chip	2.2 kohm	1/16 W	±5%	Taping		BRFC162224Z
R054	Carbon Fixed Chip	8.2 kohm	1/16 W	±5%	Taping		BRFC168224Z
R055	Not Used						
R056	Carbon Fixed Chip	10 kohm	1/16 W	±5%	Taping		BRFC161034Z
R057	Carbon Fixed Chip	10 kohm	1/16 W	±5%	Taping		BRFC161034Z
R058	Carbon Fixed Chip	10 kohm	1/16 W	±5%	Taping		BRFC161034Z
R059	Carbon Fixed Chip	100 kohm	1/16 W	±5%	Taping		BRFC161044Z
R060	Carbon Fixed Chip	3.9 kohm	1/16 W	±5%	Taping		BRFC163924Z
R061	Carbon Fixed Chip	10 ohm	1/16 W	±5%	Taping		BRFC161004Z
R062	Carbon Fixed Chip	1 kohm	1/16 W	±5%	Taping		BRFC161024Z
R063	Carbon Fixed Chip	4.7 kohm	1/16 W	±5%	Taping		BRFC164724Z
R064	Not Used						
R065	Carbon Fixed Chip	100 kohm	1/16 W	±5%	Taping		BRFC161044Z
R066	Carbon Fixed Chip	100 ohm	1/16 W	±5%	Taping		BRFC161014Z
R067	Carbon Fixed Chip	10 kohm	1/16 W	±5%	Taping		BRFC161034Z
R068	Carbon Fixed Chip	1 kohm	1/16 W	±5%	Taping		BRFC161024Z
R069	Carbon Fixed Chip	390 kohm	1/10 W	±5%	Taping		BRFC013944Z
R070	Carbon Fixed Chip	100 ohm	1/10 W	±5%	Taping		BRFC011014Z
R071	Carbon Fixed Chip	22 kohm	1/10 W	±1%	Taping		BRFC012233Z
R072	Carbon Fixed Chip	470 kohm	1/10 W	±5%	Taping		BRFC014744Z
R073	Carbon Fixed Chip	2.2 Mohm	1/10 W	±5%	Taping		BRFC012254Z
R074	Carbon Fixed Chip	100 ohm	1/16 W	±5%	Taping		BRFC161014Z
R075	Carbon Fixed Chip	220 kohm	1/10 W	±5%	Taping		BRFC012244Z
R076	Carbon Fixed Chip	4.7 kohm	1/10 W	±5%	Taping		BRFC014724Z
R077	Carbon Fixed Chip	47 kohm	1/10 W	±1%	Taping		BRFC014733Z
R078	Carbon Fixed Chip	1 kohm	1/16 W	±5%	Taping		BRFC161024Z
R079	Carbon Fixed Chip	470 kohm	1/10 W	±5%	Taping		BRFC014744Z
R080	Carbon Fixed Chip	120 ohm	1/16 W	±5%	Taping		BRFC161214Z
R081	Carbon Fixed Chip	1.5 kohm	1/16 W	±5%	Taping		BRFC161524Z
R082	Carbon Fixed Chip	1 kohm	1/16 W	±5%	Taping		BRFC161024Z
R083	Carbon Fixed Chip	15 kohm	1/10 W	±5%	Taping		BRFC011534Z
R084	Carbon Fixed Chip	15 kohm	1/16 W	±5%	Taping		BRFC161534Z
R085	Carbon Fixed Chip	1 kohm	1/16 W	±5%	Taping		BRFC161024Z
R086	Carbon Fixed Chip	100 ohm	1/10 W	±5%	Taping		BRFC011014Z
R087	Carbon Fixed Chip	220 ohm	1/16 W	±5%	Taping		BRFC162214Z
R088	Carbon Fixed Chip	27 kohm	1/16 W	±5%	Taping		BRFC162734Z
R089	Carbon Fixed Chip	150 kohm	1/10 W	±5%	Taping		BRFC011544Z
R090	Carbon Fixed Chip	560 ohm	1/16 W	±5%	Taping		BRFC165614Z
R091	Carbon Fixed Chip	330 ohm	1/16 W	±5%	Taping		BRFC163314Z
R092	Carbon Fixed Chip	15 kohm	1/16 W	±5%	Taping		BRFC161534Z

Ref. No.	Description					RS Part No.	Mfr's Part No.
R093	Carbon Fixed Chip	10 kohm	1/10 W	±5%	Taping		BRFC011034Z
R094	Carbon Fixed Chip	0 ohm	1/16 W	±5%	Taping		BRFC160004Z
R095	Carbon Fixed Chip	15 kohm	1/8 W	±5%	Taping		BRFC181534Z
R096	Carbon Fixed Chip	5.6 kohm	1/10 W	±5%	Taping		BRFC015624Z
R097	Carbon Fixed Chip	47 kohm	1/16 W	±5%	Taping		BRFC164734Z
R098	Carbon Fixed Chip	2.2 kohm	1/10 W	±5%	Taping		BRFC012224Z
R099	Carbon Fixed Chip	680 ohm	1/16 W	±5%	Taping		BRFC166814Z
R100	Carbon Fixed Chip	22 kohm	1/16 W	±5%	Taping		BRFC162234Z
R101	Carbon Fixed Chip	100 kohm	1/16 W	±5%	Taping		BRFC161044Z
R102	Carbon Fixed Chip	3.9 kohm	1/10 W	±5%	Taping		BRFC013924Z
R103	Carbon Fixed Chip	4.7 ohm	1/16 W	±5%	Taping		BRFC164794Z
R104	Carbon Fixed Chip	4.7 kohm	1/16 W	±5%	Taping		BRFC164724Z
R105	Carbon Fixed Chip	150 kohm	1/10 W	±5%	Taping		BRFC011544Z
R106	Carbon Fixed Chip	150 kohm	1/10 W	±5%	Taping		BRFC011544Z
R107	Carbon Fixed Chip	150 kohm	1/10 W	±5%	Taping		BRFC011544Z
R108	Carbon Fixed Chip	10 kohm	1/16 W	±5%	Taping		BRFC161034Z
R109	Carbon Fixed Chip	150 kohm	1/10 W	±5%	Taping		BRFC011544Z
R110	Carbon Fixed Chip	1.2 kohm	1/10 W	±5%	Taping		BRFC011224Z
R111	Carbon Fixed Chip	1 kohm	1/16 W	±5%	Taping		BRFC161024Z
R112	Carbon Fixed Chip	22 kohm	1/16 W	±5%	Taping		BRFC162234Z
R113	Carbon Fixed Chip	15 kohm	1/10 W	±5%	Taping		BRFC011534Z
R114	Carbon Fixed Chip	47 kohm	1/16 W	±5%	Taping		BRFC164734Z
R115	Carbon Fixed Chip	22 kohm	1/16 W	±5%	Taping		BRFC162234Z
R116	Carbon Fixed Chip	2.2 kohm	1/16 W	±5%	Taping		BRFC162224Z
R117	Carbon Fixed Chip	680 kohm	1/16 W	±5%	Taping		BRFC166844Z
R118	Carbon Fixed Chip	39 kohm	1/16 W	±5%	Taping		BRFC163934Z
R119	Carbon Fixed Chip	10 kohm	1/16 W	±5%	Taping		BRFC161034Z
R120	Carbon Fixed Chip	2.2 kohm	1/16 W	±5%	Taping		BRFC162224Z
R121	Carbon Fixed Chip	10 kohm	1/10 W	±5%	Taping		BRFC011034Z
R122	Carbon Fixed Chip	33 kohm	1/16 W	±5%	Taping		BRFC163334Z
R123	Carbon Fixed Chip	56 kohm	1/16 W	±5%	Taping		BRFC165634Z
R124	Carbon Fixed Chip	22 kohm	1/16 W	±5%	Taping		BRFC162234Z
R125	Carbon Fixed Chip	27 kohm	1/16 W	±5%	Taping		BRFC162734Z
R126	Carbon Fixed Chip	270 kohm	1/16 W	±5%	Taping		BRFC162744Z
R127	Carbon Fixed Chip	47 kohm	1/16 W	±5%	Taping		BRFC164734Z
R128	Carbon Fixed Chip	180 kohm	1/16 W	±5%	Taping		BRFC161844Z
R129	Carbon Fixed Chip	1.8 kohm	1/16 W	±5%	Taping		BRFC161824Z
R130	Carbon Fixed Chip	6.8 kohm	1/16 W	±5%	Taping		BRFC166824Z
R131	Carbon Fixed Chip	10 kohm	1/16 W	±5%	Taping		BRFC161034Z
R132	Carbon Fixed Chip	68 kohm	1/16 W	±5%	Taping		BRFC166834Z
R133	Carbon Fixed Chip	4.7 ohm	1/8 W	±5%	Taping		BRFC184794Z
R134	Carbon Fixed Chip	4.7 ohm	1/8 W	±5%	Taping		BRFC184794Z
R135	Not Used						
R136	Carbon Fixed Chip	0 ohm	1/16 W	±5%	Taping		BRFC160004Z
R137, 138	Not Used						
R139	Carbon Fixed Chip	0 ohm	1/10 W	±5%	Taping		BRFC010004Z
RT001	Semi-Fixed	RT-550	100 kΩ				BRTY0550104
RT002	Semi-Fixed	RT-550	47 kΩ				BRTY0550473

Ref. No.	Description			RS Part No.	Mfr's Part No.
Variable Resistors					
VR001		RV-746	100 kC		BRVY0746001
VR002		RV-744	100 kA		BRVY0744001
Crystals					
X001		QX-566	12.8 MHz		BQXY0566001
X002		QX-523	57.62 MHz		BQXY0523001
X003		QX-524	52.575 MHz		BQXY0524001
Miscellaneous					
B001	Main PC Board	PH-188AA			BPHY0188AAZ
CT001	Trimmer Capacitor	CT-093	ECRZN020A21 20 pF		BCTY0093200
CT002	Trimmer Capacitor	CT-093	ECRZN020A21 20 pF		BCTY0093200
J001	Jack	PG-172	9331S-22A-GF		BPGY0172022
TP001	Terminal Pin	TP-117	IPS-1340-02		BTPY0117001
	Chassis	SECC	T=1 NON OIL		HCSY431855Z
	Nut	C3601BD	M11		MNUT429506Z
	Bind HD+ Screw	M2.6X6	NI		SSCW192606N
	Shield, Case	SPTE	T=0.3		HSDC331951Z
	Shield Cover	SPTE	T=0.3		HSDC431952Z

Note: Due to production changes, the connectors between the RF PCB (J001) and the LOGIC PCB (J501) are exchanged on some units. When replacing either board, be sure to solder on the connector appropriate to the unit being repaired.

LOGIC PCB ASSEMBLY

Ref. No.	Description						RS Part No.	Mfr's Part No.
Assembly, PCB, Logic Consists of the following:								AB249ZPBB for USA/Canada AB249BPBB for UK
Capacitors								
Notes: All ceramic capacitors are Multilayer (2125) Tape type, unless otherwise specified. The following codes indicate variations of capacitors against temperatures: B=±10%, CH=0±60 ppm/°C, SL=+350 ppm/°C~1000 ppm/°C, UJ=-750 ppm/°C ±120 ppm/°C								
C501	Ceramic	0.1 µF	25 V	±10%	B	Tape		BCXT511045Z
C502	Ceramic	0.1 µF	25 V	±10%	B	Tape		BCXT511045Z
C503	Ceramic (3216)	1 µF	16 V	+80%/-20%	F	Tape		BCXF311050Z
C504	Ceramic	0.1 µF	25 V	±10%	B	Tape		BCXT511045Z
C505	Ceramic	68 pF	50 V	±5%	CH	Tape		BCBH816804Z
C506	Ceramic (3216)	1 µF	16 V	+80%/-20%	F	Tape		BCXF311050Z
C507	Ceramic	0.01 µF	50 V	±10%	B	Tape		BCXT811035Z
C508	Ceramic	1 µF	16 V	+80%/-20%	F	Tape		BCXF311050Z
C509	Ceramic	22 pF	50 V	±5%	CH	Tape		BCBH812204Z
C510	Ceramic	22 pF	50 V	±5%	CH	Tape		BCBH812204Z
C511	Ceramic	0.001 µF	50 V	±10%	B	Tape		BCXT811025Z
C512	Ceramic (3216)	1 µF	16 V	+80%/-20%	F	Tape		BCXF311050Z
C513	Ceramic	0.1 µF	25 V	±10%	B	Tape		BCXT511045Z
C514	Electric Double Layer	0.047 F	5.5 V	+80%/-20%	C-266			BCFD854730Z
C515	Ceramic	0.001 µF	50 V	±10%	B	Tape		BCXT811025Z
C516	Ceramic	0.1 µF	25 V	±10%	B	Tape		BCXT511045Z
C517	Ceramic	0.1 µF	25 V	±10%	B	Tape		BCXT511045Z
Diodes								
D501		RLS4148	TE11					BDAY0433001
D502	LED Chip	CL-181Y-C-TS						BDAY0747001
D503	LED Chip	CL-181Y-C-TS						BDAY0747001
Integrated Circuits								
IC501		NJM2904M (TE3)						BDEY0703002
IC502		RH5RA40AA-T1						BDEY2489003
IC503		RH5VA33CA-T1						BDEY1989003
IC504		RH5RA43AA-T1						BDEY2450003
IC505		HD6433836A20H (UC1702) for USA/Canada HD6433836A44H (UC1771) for UK						BDDY0242001 BDDY0311001
Coils								
L501	Inductor Molded (Chip)	LZ-120	BK2125HM601					BLZY0120601
L502	Inductor Molded (Chip)	LZ-120	BK2125HM601					BLZY0120601
L503	Inductor Molded (Chip)	LZ-120	BK2125HM601					BLZY0120601

Ref. No.	Description					RS Part No.	Mfr's Part No.
Transistors							
Q501		DB-381	2SC2712-Y	TE85L			BDBC2712124
Q502		DB-381	2SC2712-Y	TE85L			BDBC2712124
Resistors							
R501	Carbon Fixed Chip	33 kohm	1/10 W	±5%	Taping		BRFC013334Z
R502	Carbon Fixed Chip	330 kohm	1/10 W	±5%	Taping		BRFC013344Z
R503	Carbon Fixed Chip	100 kohm	1/10 W	±5%	Taping		BRFC011044Z
R504	Carbon Fixed Chip	56 kohm	1/10 W	±5%	Taping		BRFC015634Z
R505	Carbon Fixed Chip	100 kohm	1/10 W	±5%	Taping		BRFC011044Z
R506	Carbon Fixed Chip	1 Mohm	1/10 W	±5%	Taping		BRFC011054Z
R507	Carbon Fixed Chip	680 kohm	1/10 W	±5%	Taping		BRFC016844Z
R508	Carbon Fixed Chip	680 kohm	1/10 W	±5%	Taping		BRFC016844Z
R509	Carbon Fixed Chip	100 kohm	1/10 W	±5%	Taping		BRFC011044Z
R510	Carbon Fixed Chip	1 Mohm	1/10 W	±5%	Taping		BRFC011054Z
R511	Carbon Fixed Chip	100 kohm	1/10 W	±5%	Taping		BRFC011044Z
R512	Carbon Fixed Chip	47 ohm	1/10 W	±5%	Taping		BRFC014704Z
R513	Carbon Fixed Chip	47 kohm	1/10 W	±5%	Taping		BRFC014734Z
R514	Carbon Fixed Chip	22 kohm	1/10 W	±1%	Taping		BRFC012233Z
R515	Carbon Fixed Chip	22 kohm	1/10 W	±1%	Taping		BRFC012233Z
R516	Carbon Fixed Chip	10 kohm	1/10 W	±5%	Taping		BRFC011034Z
R517	Carbon Fixed Chip	10 kohm	1/10 W	±5%	Taping		BRFC011034Z
R518	Carbon Fixed Chip	2.2 kohm	1/10 W	±5%	Taping		BRFC012224Z
R519	Carbon Fixed Chip	2.2 kohm	1/10 W	±5%	Taping		BRFC012224Z
R520	Carbon Fixed Chip	2.2 kohm	1/10 W	±5%	Taping		BRFC012224Z
R521	Carbon Fixed Chip	2.2 kohm	1/10 W	±5%	Taping		BRFC012224Z
R522	Not Used						
R523	Carbon Fixed Chip	10 kohm	1/10 W	±5%	Taping		BRFC011034Z
R524	Carbon Fixed Chip	10 kohm	1/10 W	±5%	Taping		BRFC011034Z
R525	Carbon Fixed Chip	10 kohm	1/10 W	±5%	Taping		BRFC011034Z
R526	Carbon Fixed Chip	10 kohm	1/10 W	±5%	Taping		BRFC011034Z
R527	Carbon Fixed Chip	10 kohm	1/10 W	±5%	Taping		BRFC011034Z
R528	Carbon Fixed Chip	10 kohm	1/10 W	±5%	Taping		BRFC011034Z
R529	Carbon Fixed Chip	1 kohm	1/10 W	±5%	Taping		BRFC011024Z
R530	Carbon Fixed Chip	10 kohm	1/10 W	±5%	Taping		BRFC011034Z
R531	Carbon Fixed Chip	1 kohm	1/10 W	±5%	Taping		BRFC011024Z
R532	Carbon Fixed Chip	1 kohm	1/10 W	±5%	Taping		BRFC011024Z
R533	Carbon Fixed Chip	10 kohm	1/10 W	±5%	Taping		BRFC011034Z
R534	Carbon Fixed Chip	2.2 kohm	1/10 W	±5%	Taping		BRFC012224Z
R535	Carbon Fixed Chip	220 ohm	1/10 W	±5%	Taping		BRFC012214Z
R536	Carbon Fixed Chip	220 ohm	1/10 W	±5%	Taping		BRFC012214Z
R537	Carbon Fixed Chip	100 kohm	1/10 W	±5%	Taping		BRFC011044Z
R538	Carbon Fixed Chip	10 kohm	1/10 W	±5%	Taping		BRFC011034Z
R539	Carbon Fixed Chip	8.2 kohm	1/10 W	±5%	Taping		BRFC018224Z
R540	Carbon Fixed Chip	10 kohm	1/10 W	±5%	Taping		BRFC011034Z
R541	Carbon Fixed Chip	10 kohm	1/10 W	±5%	Taping		BRFC011034Z
R542	Carbon Fixed Chip	10 kohm	1/10 W	±5%	Taping		BRFC011034Z
R543	Carbon Fixed Chip	100 kohm	1/10 W	±5%	Taping		BRFC011044Z
R544	Carbon Fixed Chip	100 kohm	1/10 W	±5%	Taping		BRFC011044Z
R545	Carbon Fixed Chip	100 kohm	1/10 W	±5%	Taping		BRFC011044Z

Ref. No.	Description					RS Part No.	Mfr's Part No.
R546	Carbon Fixed Chip	100 kohm	1/10 W	±5%	Taping		BRFC011044Z
R547	Carbon Fixed Chip	100 kohm	1/10 W	±5%	Taping		BRFC011044Z
R548	Carbon Fixed Chip	100 kohm	1/10 W	±5%	Taping		BRFC011044Z
R549	Carbon Fixed Chip	100 kohm	1/10 W	±5%	Taping		BRFC011044Z
R550	Carbon Fixed Chip	100 kohm	1/10 W	±5%	Taping		BRFC011044Z
R551	Carbon Fixed Chip	100 kohm	1/10 W	±5%	Taping		BRFC011044Z
R552	Carbon Fixed Chip	100 kohm	1/10 W	±5%	Taping		BRFC011044Z
Miscellaneous							
K501	Rubber Keyboard	KE-109					BKEY0109001
DP501	Liquid Crystal Display	DL-103					BDLY0103001
B501	Key PC Board	PH-189AA					BPHY0189AAZ
J501	Plug	PG-177	9210B-2-22Z395-GF				BPGY0177022
X501	Crystal	QX-345	3.579545MHz				BQXY0345001
	LCD Case	SPT	0.3T				HHDZ329595Z
	Insulation Plate	POLYESTER	FILM,0.1T				RETC430423A
	LCD Paper						RETC430039Z
	Lighting Plate	PMMA					GETC429586Z
	Reflector	YUPO	PAPER,0.15T				RETC430436Z
	Shield Plate	SPT	T=0.3				HSDC431953Z

Note: Due to production changes, the connectors between the RF PCB (J001) and the LOGIC PCB (J501) are exchanged on some units. When replacing either board, be sure to solder on the connector appropriate to the unit being repaired.

OTHER ELECTRICAL PARTS

Ref. No.	Description			RS Part No.	Mfr's Part No.
J901	Antenna Jack	JK-661	BNC-RF3		BJKY0661001
SP901	Speaker	SP-326	SU-36W08011B (BLK)		BSPY0326001
W901	Wires, Assembled	W-071924	50 2P		CZDZ071924Z
AT951	Antenna	AT-233	UNID233C		BATY0233001

SEMICONDUCTOR LEAD IDENTIFICATION

DIODES

DSM10C



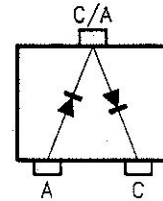
HZK6B



RLS4148



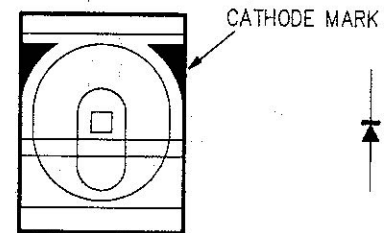
HSM88AS-TL
1SS226



HSU277TRF
MA366
HVU131TRF
1SS355

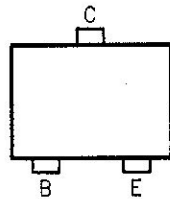


CL181-C-TS

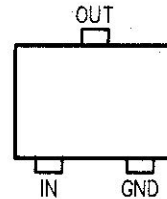


TRANSISTORS

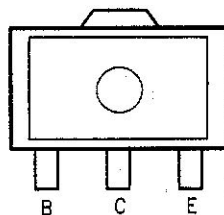
2SA1162-Y
2SC2712-Y
2SC3356-R24



DTC114 EK

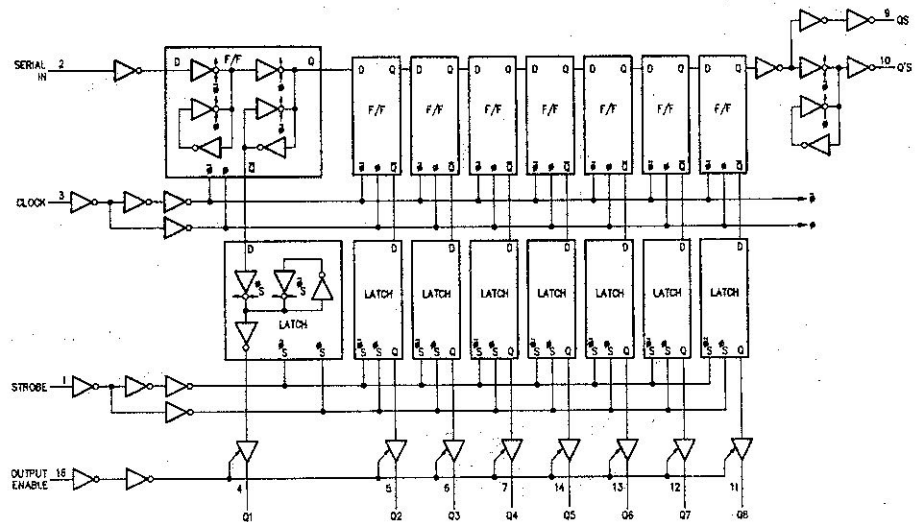
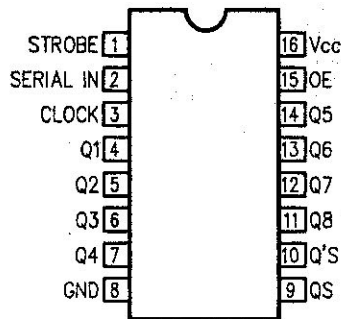


2SB1115

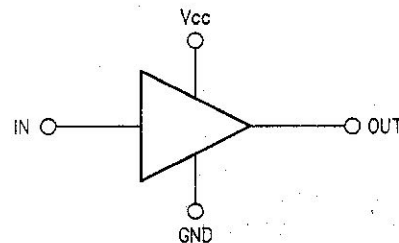
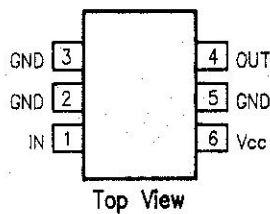


IC LEAD IDENTIFICATION AND INTERNAL DIAGRAMS

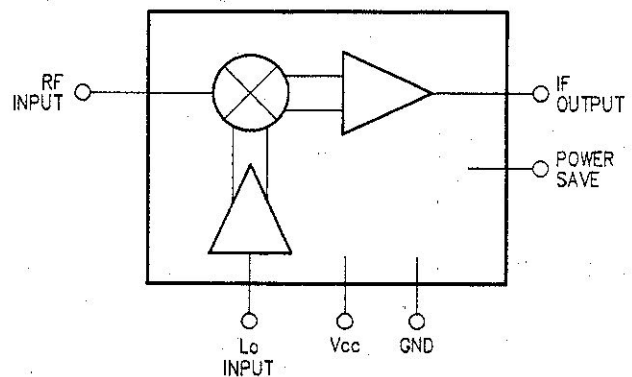
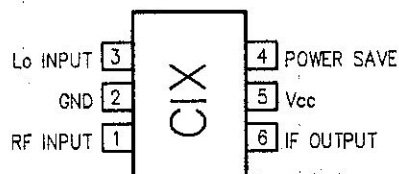
IC1, IC2
TC74HC4094AF



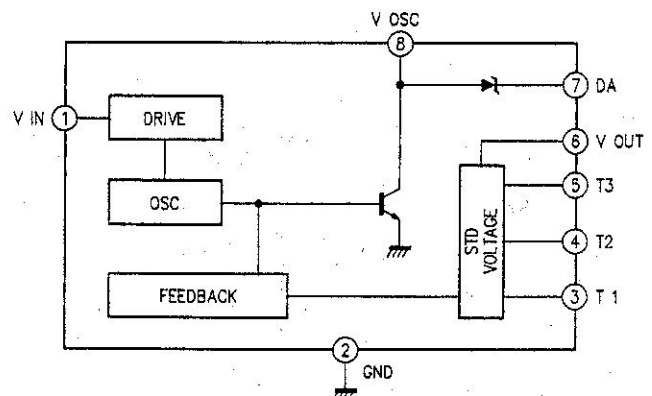
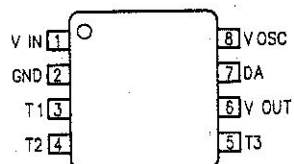
IC3, IC5, IC12
μPC2747T
μPC2715T



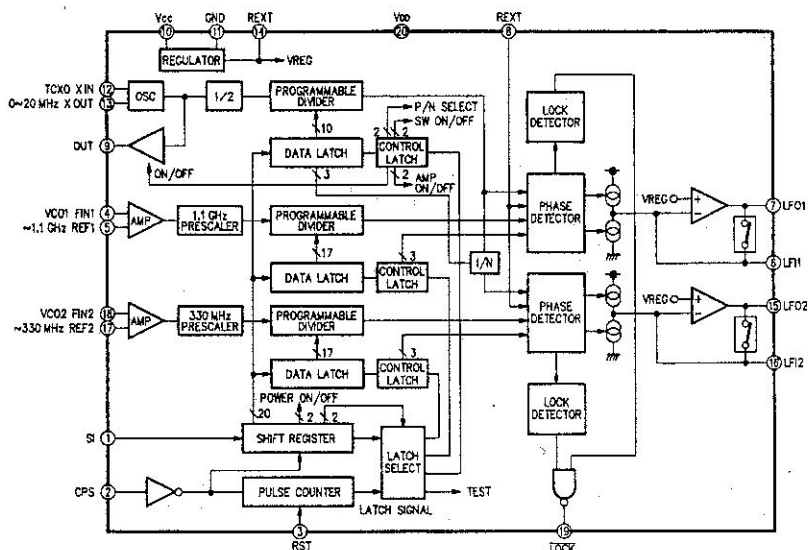
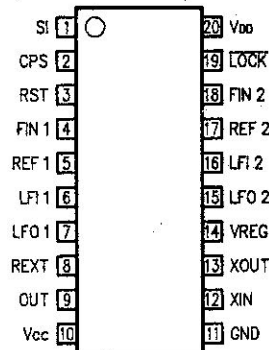
IC4, IC8
μPC2757T



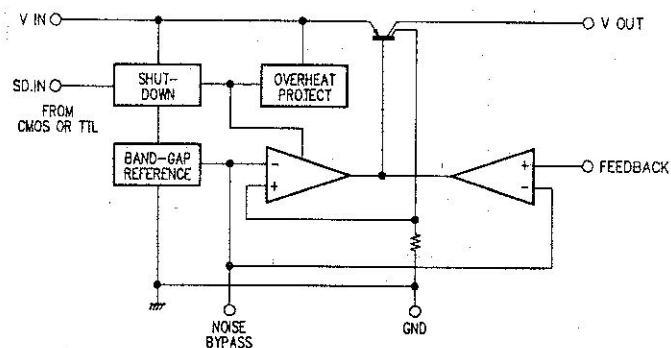
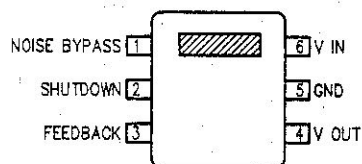
IC6
TK11806M



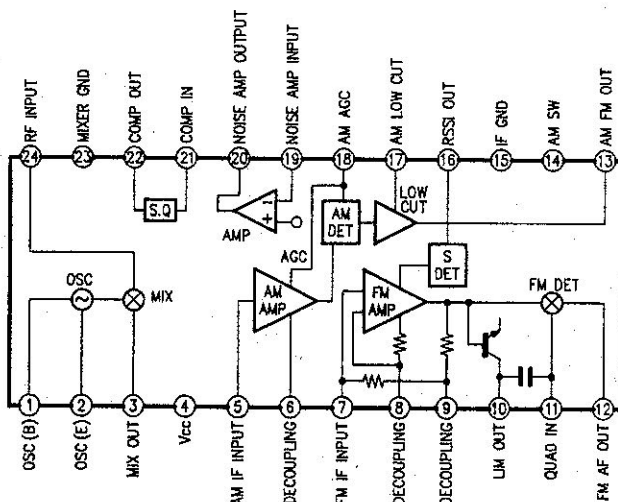
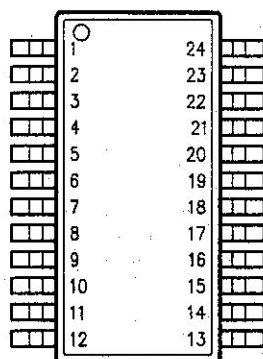
IC7
M64086GP



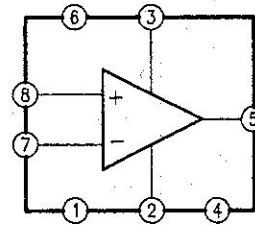
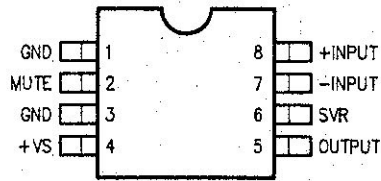
IC9
TK11900M



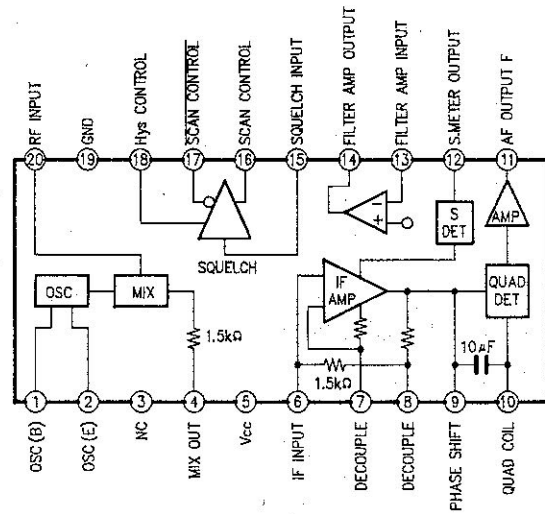
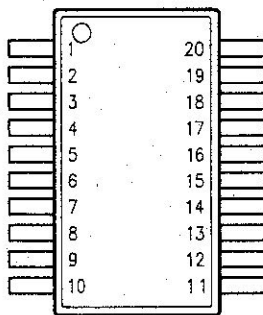
IC014
TK10930V



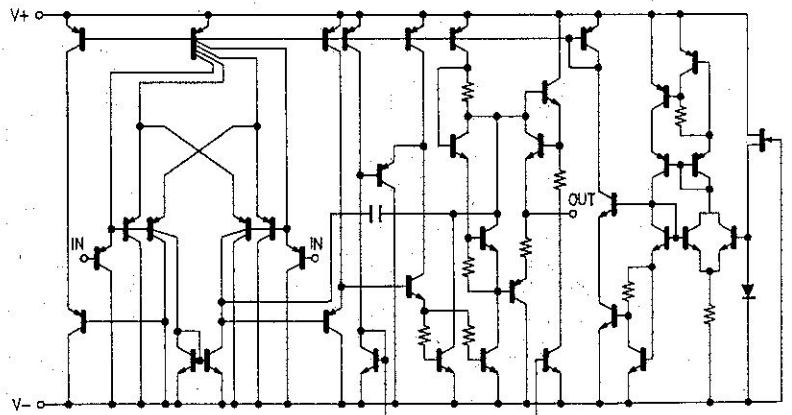
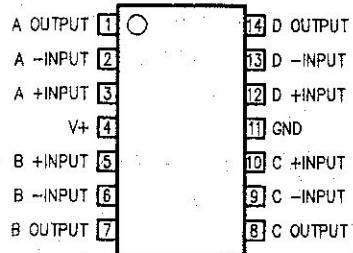
IC015
TDA7233D



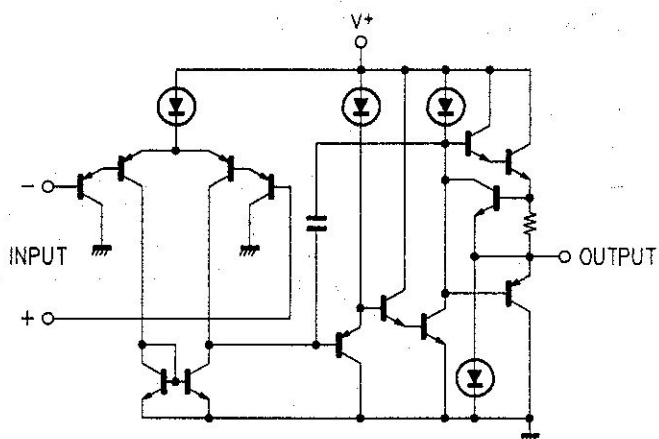
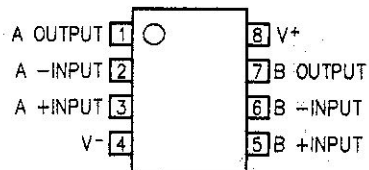
IC16
TK10489MTL



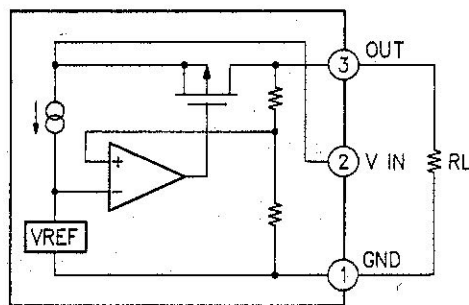
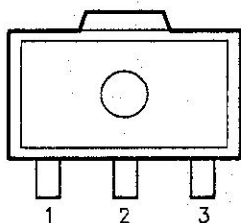
IC17
NJM3403AV



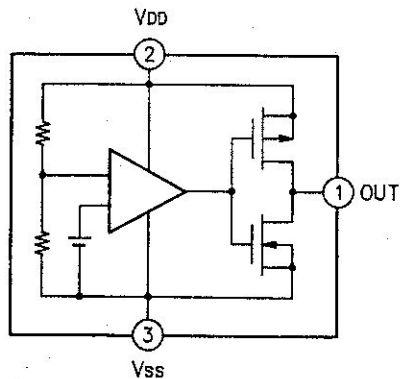
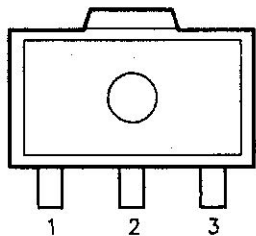
IC501
NJM2904M



IC502, IC504
RH5RA43AA-T1
RH5RA40AA-T1



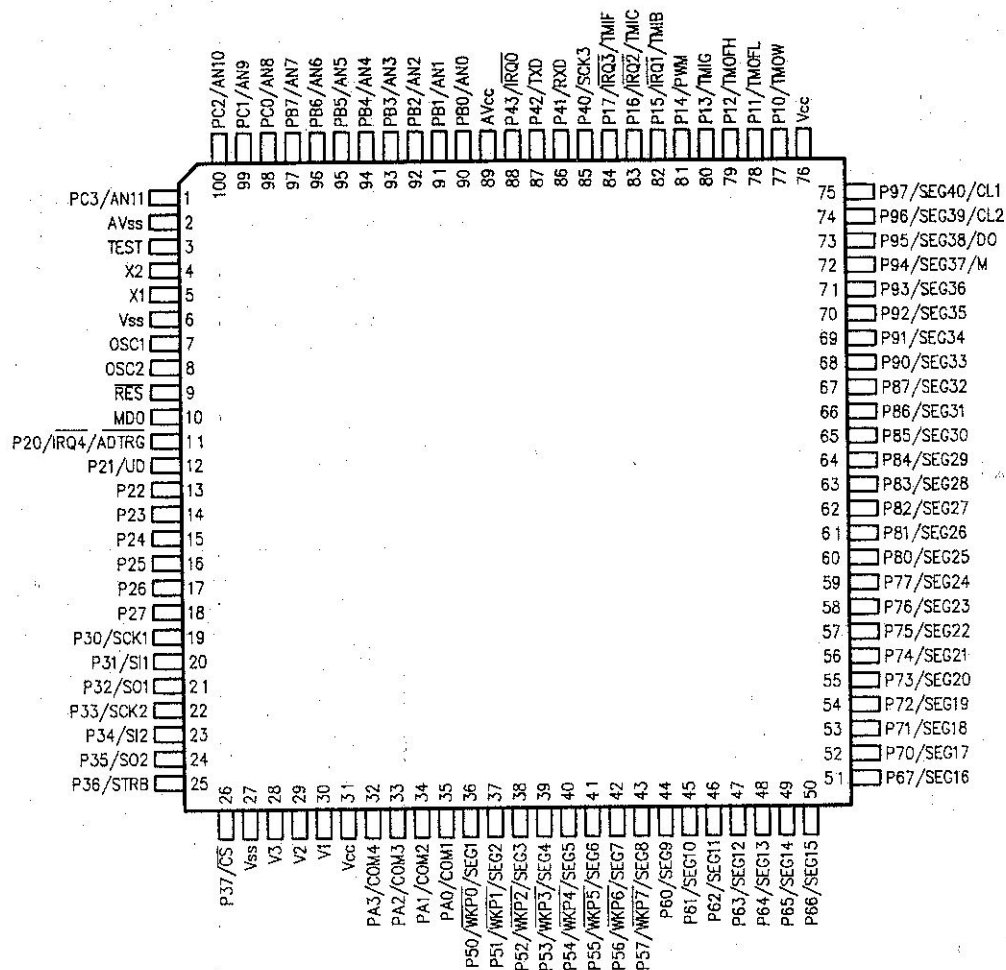
IC503
RH5VA33CA-T1



IC505

HD6433836A20H (UC1702) for USA/Canada

HD6433836A44H (UC1771) for UK



VOLTAGE CHARTS

TEST CONDITIONS

Measurement Conditions

Voltage supply is 6 V at battery terminal, unless otherwise specified.

TRANSISTOR

Unit [V]

Ref. No.	E	C	B	Remarks
Q1	0	0/1.8	4.0/0	VCO2 ON/OFF
Q2	0	0/1.8	4.0/0	VCO1 ON/OFF
Q3	0.8/2.0	3.8	2	VCO2 ON/OFF
Q4	0.8/2.0	3.8	1.5	VCO1 ON/OFF
Q5	0	-1.5	-0.7	
Q6	0		0.7	REF VCO 1, 2 CONT V
Q7	1	3.9	1.4	
Q8	0	0/0.6	4.0/0	MUTE ON/OFF
Q9	1.4	3.9	1.8	
Q10	0		0.6	REF VCO3 CONT V
Q11	0.6	2.5	1.3	
Q12	3.9	1	3.3	AM, NO MOD 20 μ V IN
Q13	0	3.3	0.5	AM, NO MOD 20 μ V IN
Q14	1.2	3.9	1.8	WFM, NO MOD 100 μ V IN
Q15	3.9	3.8	3.8/3.0	NFM, AM OFF/ON
Q16	3.9	3.8	3.8/3.0	AM OFF/ON
Q17	1.3	1.3	0.7	NFM, NO MOD 100 μ V IN
Q18	3.9	3.8	3.8/3.0	WFM OFF/ON
Q19	1.3	3.9	1.8/0	WFM, NO MOD 100 μ V IN
Q20	1.3	3.9	1.8/0	NFM, NO MOD 100 μ V IN
Q21	0	0/0.6	3.8/0	AM ON
Q22	0	0/1.2	3.8/0	AM ON
Q501	0	3.7/0	0/0.6	POW. ON Reset
Q502	0	4.0/0	0/0.6	BL OFF/ON

ICs

Unit [V]

Ref. No.	Port	V	Remarks
IC1	1	0/3.8	Active high pulse
	2	0/3.8	Active high pulse
	3	3.8/0	Active low pulse
	4	3.8/0	B1 ON/OFF
	5	3.8/0	B2 ON/OFF
	6	3.8/0	B3 ON/OFF
	7	3.8/0	B4 ON/OFF
	8	0	GND
	9	0/3.8	Active high pulse
	10		NC
	11		NC
	12	3.8/0	B7 ON/OFF
	13	3.8/0	B6 ON/OFF
	14	3.8/0	B5 ON/OFF
	15	3.8/0	
	16	3.9	
IC2	1	0/3.7	Active high pulse
	2	0/3.7	Active high pulse
	3	3.8/0	Active low pulse
	4	3.8/0	VCO1 ON/OFF
	5	3.8/0	VCO2 ON/OFF
	6	3.8/0	IF1 ON/OFF
	7	3.8/0	IF2 ON/OFF
	8	0	GND
	9		NC
	10		NC
	11	3.8/0	ATT ON/OFF
	12		NC
	13		NC
	14		NC
	15	3.8/0	Active low pulse
	16	3.9	
IC3	1	0.8	
	2	0	GND
	3	0	GND
	4	3	
	5	0	GND
	6	3.2	
IC4	1	1	
	2	0	GND
	3	1.1	

Unit [V]

Unit [V]

Ref. No.	Port	V	Remarks
IC4	4	3.2	
	5	3.2	
	6	2	
IC5	1	0.7	
	2	0	GND
	3	0	GND
	4	3	
	5	0	GND
	6	3.2	
IC6	1	6	
	2	0	GND
	3	9.2	
	4	9.2	
	5	9.2	
	6	29	
	7	29	
	8		OSC
IC7	1	0/3.8	Active high pulse
	2	3.8/0	Active low pulse
	3	3.8/0	Active low pulse
	4	1.6	
	5	1.6	
	6	1	
	7		NC
	8	1.3	
	9		NC
	10	3.8	
	11	0	GND
	12	1.6	
	13	2.8	
	14	1.3	
	15		NC
	16	1	
	17	1.5	
	18	1.5	
	19	0/3.8	LOCK/UNLOCK
	20	3.8	
IC8	1	1.2	
	2	0	GND
	3	1.2	
	4	3.3	
	5	3.3	
	6	2	

Ref. No.	Port	V	Remarks
IC9	1	1.2	
	2	0	GND
	3	1.2	
	4	3.9	
	5	0	GND
	6	6	
IC12	1	0.7	
	2	0	GND
	3	0	GND
	4	3	
	5	0	GND
	6	3.3	
IC14	1	3.9	
	2	3	
	3	3.3	
	4	3.9	NFM, AM ON
	5	1.2	
	6	1.2	
	7	1.2	
	8	0	
	9	1.2	
	10	3.9	
	11	3.9	
	12	1.5	NFM, NO MOD 100 μ V IN
	13	1.6	AM, NO MOD 100 μ V IN
	14	0.6/0	NFM/AM, WFM
	15	0	GND
	16	1	AM, NO MOD 20 μ V IN
	17	0.7	
	18	0.5	
	19	1.9	NFM, NO MOD 100 μ V IN
	20	1.9	NFM, NO MOD 100 μ V IN
	21		NC
	22		NC
	23	0	GND
	24	1.3	
IC15	1	0	GND
	2	0	GND
	3	0	GND
	4	5.8	
	5	2.5	
	6		NC
	7	0.5	
	8	0	

Unit [V]

Ref. No.	Port	V	Remarks
IC16	1	3.7	
	2	3	
	3		NC
	4	1.7	
	5	3.9	WFM ON
	6	1.2	
	7	1.2	
	8	1.2	
	9	3.9	
	10	3.9	
	11	1.2	WFM, NO MOD 100 μ V IN
	12		NC
	13	0.8	
	14	1.9	
	15		NC
	16		NC
	17		NC
	18		NC
	19	0	GND
	20	1.3	
IC17	1	2	NFM, NO MOD 100 μ V IN
	2	2	NFM, NO MOD 100 μ V IN
	3	1.9	NFM, NO MOD 100 μ V IN
	4	3.9	
	5	1.5	
	6	1.5	NFM, NO MOD 100 μ V IN
	7	4.5	NFM, NO MOD 100 μ V IN
	8	3	NFM, NO MOD 100 μ V IN
	9	1	NFM, NO MOD 100 μ V IN
	10	1	NFM, NO MOD 100 μ V IN
	11	0	GND
	12	1.6	NFM, NO MOD 100 μ V IN
	13	1	NFM, NO MOD 100 μ V IN
	14	3.2	NFM, NO MOD 100 μ V IN
IC501	1	1.5	NFM, NO MOD 100 μ V IN
	2	1.5	NFM, NO MOD 100 μ V IN
	3	1.5	NFM, NO MOD 100 μ V IN
	4	0	GND
	5	1.4	
	6	1.4	NFM, NO MOD 100 μ V IN
	7	1.4	NFM, NO MOD 100 μ V IN
	8	4	

Unit [V]

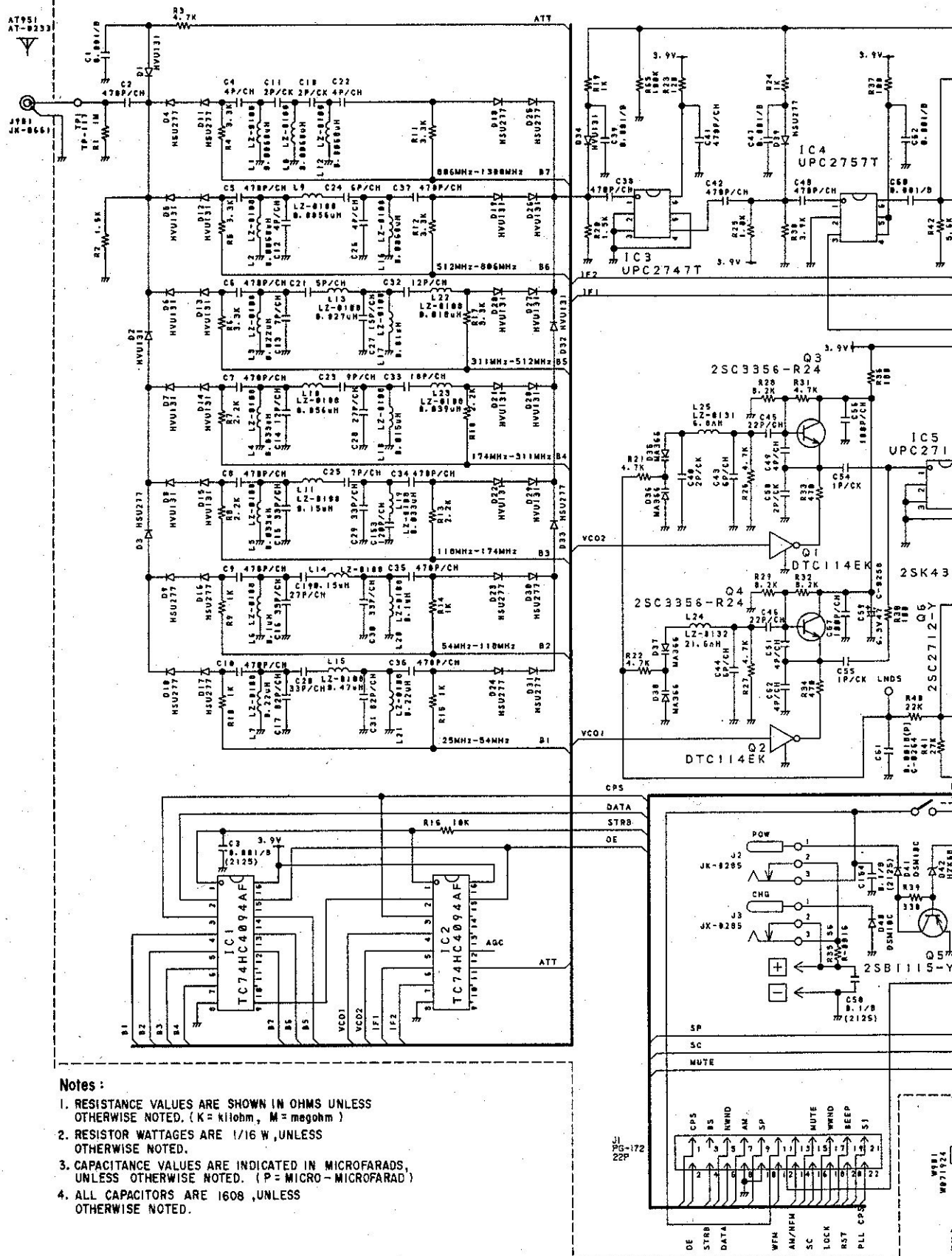
Ref. No.	Port	V	Remarks
IC502	1	6	
	2	0	GND
	3	4	
IC503	1	4	
	2	4	
	3	0	GND
IC504	1	6	
	2	0	GND
	3	4.3	
IC505	1	4	
	2	0	GND
	3	0	GND
	4		NC
	5	4	
	6	0	GND
	7		OSC
	8		OSC
	9	3.7	
	10	3.7	
	11	3.7/0	Active low pulse: SIG IN
	12	3.7/0	Active high: SIG IN
	13	0/3.7	MUTE OFF/ON
	14	3.7/0	AM OFF/ON
	15	3.7/0	NFM, AM OFF/ON
	16	3.7/0	WFM OFF/ON
	17		NC
	18		NC
	19	3.7/0	Active low pulse
	20	0/3.7	Active high pulse
	21	0/3.7	Active high pulse
	22	0/3.7	Active high pulse
	23	3.7/0	Active low pulse
	24		NC
	25		NC
	26		NC
	27	0	GND
	28	1.2	
	29	2.5	
	30	3.7	
	31	3.7	
	32		LCD: Step wave
	33		LCD: Step wave
	34		LCD: Step wave
	35		LCD: Step wave

Unit [V]

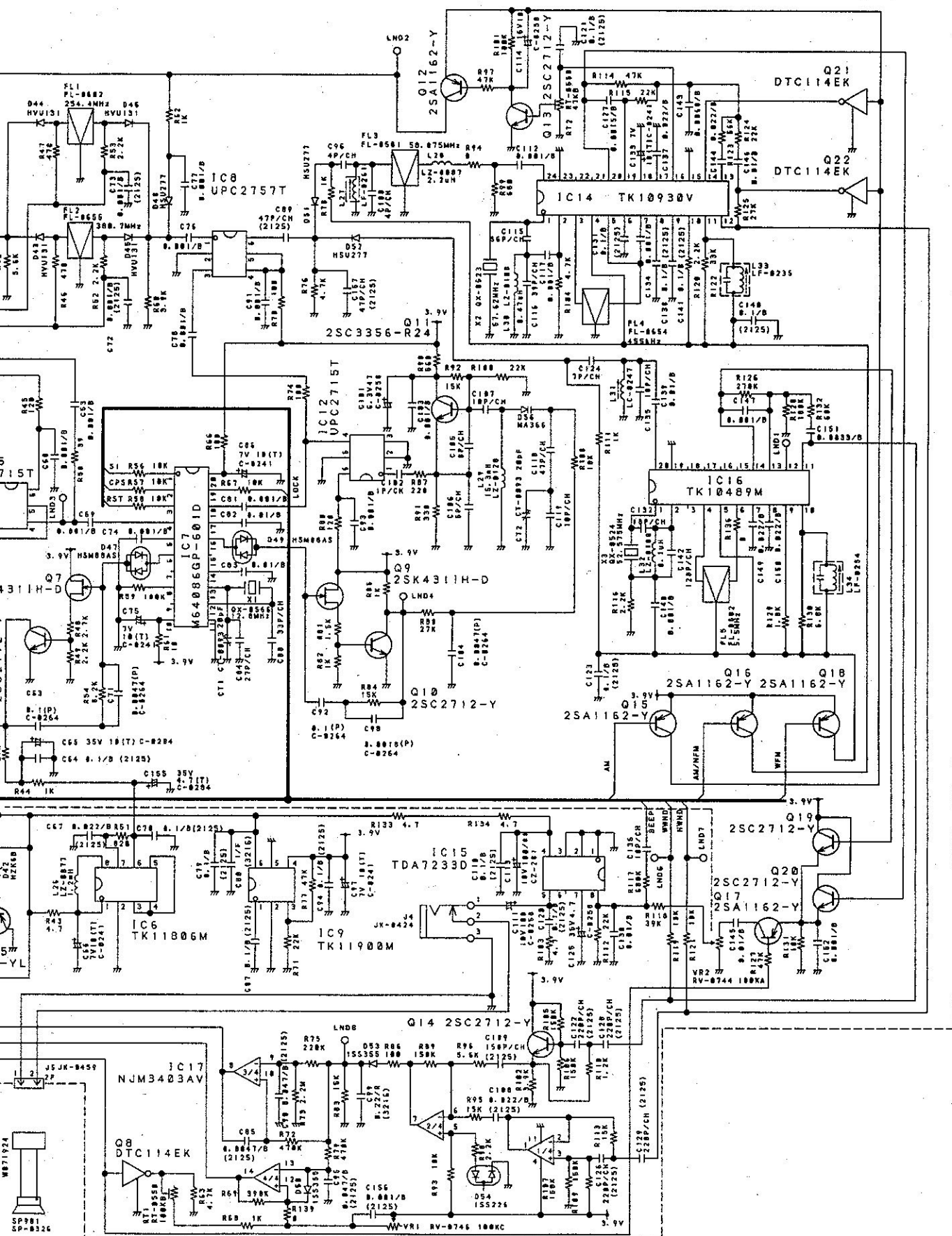
Unit [V]

Ref. No.	Port	V	Remarks
IC505	36	0/1.0	ROW1 OFF/ON
	37	0/1.0	ROW2 OFF/ON
	38	0/1.0	ROW3 OFF/ON
	39	3.9/0	COL1 OFF/ON
	40	3.9/0	COL2 OFF/ON
	41	3.9/0	COL3 OFF/ON
	42	3.9/0	COL4 OFF/ON
	43	3.9/0	COL5 OFF/ON
	44		LCD: Step wave
	45		LCD: Step wave
	46		LCD: Step wave
	47		LCD: Step wave
	48		LCD: Step wave
	49		LCD: Step wave
	50		LCD: Step wave
	51		LCD: Step wave
	52		LCD: Step wave
	53		LCD: Step wave
	54		LCD: Step wave
	55		LCD: Step wave
	56		LCD: Step wave
	57		LCD: Step wave
	58		LCD: Step wave
	59		LCD: Step wave
	60		LCD: Step wave
	61		LCD: Step wave
	62		LCD: Step wave
	63		LCD: Step wave
	64		LCD: Step wave
	65		NC
	66		LCD: Step wave
	67		LCD: Step wave
	68		LCD: Step wave
	69		LCD: Step wave
	70		LCD: Step wave
	71		LCD: Step wave
	72		LCD: Step wave
	73		NC
	74		NC
	75		NC
	76	3.7	
	77	0/1.0	ROW3 OFF/ON
	78	0/1.0	ROW4 OFF/ON
	79	3.7/0	BEEP: Square wave

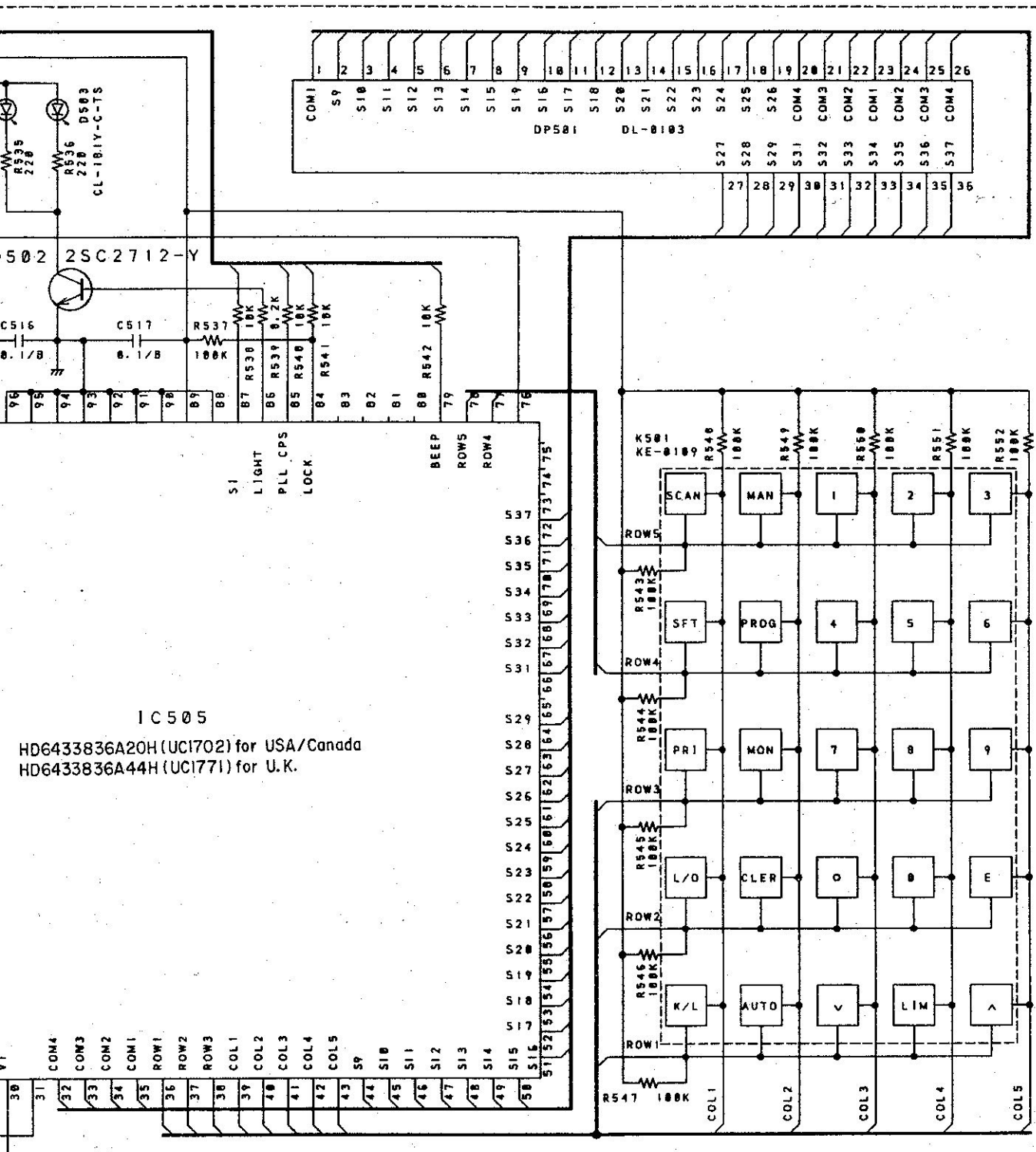
Ref. No.	Port	V	Remarks
IC505	80		NC
	81		NC
	82		NC
	83		NC
	84	0.7/3.7	LOCK/UNLOCK
	85	0.7/3.7	Active high pulse
	86	0/3.7	BL OFF/ON
	87	0/3.7	Active high pulse
	88	0	GND
	89	4	
	90	0	GND
	91	0	GND
	92	0	GND
	93	0	GND
	94	0	GND
	95	0	GND
	96	0	GND
	97	1.2	WFM, NO MOD 100 μ V IN
	98	1.5	NFM, NO MOD 100 μ V IN
	99	1.5	NFM, NO MOD 100 μ V IN
	100	3	Battery low



DIAGRAMS (20-506)







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